

# **A Guide to Understanding HERBAL MEDICINES**

**and Surviving the Coming  
Pharmaceutical Monopoly**

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# INTRODUCTION

One must remember that a book cannot replace a complete and accurate diagnosis from a competent medical practitioner. This book is intended to be used as a source of reference, not an index for self-diagnosis and self-medication. **Never** self-medicate without the advice of a medical professional. Above all, educate yourself before making important health decisions.

This book is designed for patients and their physicians or health care practitioners to use together. The use of herbal medicine does **not** exclude the use of other medications. Many times the educated use of herbals is very complementary to prescription drugs. In other cases, herbals can be used instead of synthetic drugs, either to aid in the prevention of disease or in the cure of the disease itself.

Presented in this book are many of the chemical constituents that exist in each herb. These constituents represent only a small percentage of phytochemicals found in each plant. Many herbs have well over 500 chemical constituents in them. To have listed them all would be an encyclopedia type task for both the writer and reader. However, I have tried to list the chemicals which, to date, seem to be the ones that have the herbal effects. Although very few controlled, double-blind studies on herbs have been done in this country, many of the chemicals found in herbs are well known and their effects have been well documented. This will be of great benefit to the person trying to understand how herbs work and to the physician who wants to integrate them into his practice.

This book is to be used as an aid to learning about herbal remedies. It is not written to appease anyone, but is for those who wish to learn more about herbs. For this reason, you will find that a few of the herbs discussed in this book are not legally obtained in this country. Nonetheless, they have been included because of their proven value. **It is not my goal to be politically correct, but to offer as factually as possible the herbs that have shown (through the test of time and the laboratory) to be the most effective.**

The current leaning of medicine in the United States has been in the **treatment** of diseases, **not** in the **prevention** of them. Patients who are suffering from chronic pain or debilitating long term illnesses are aware that "conventional" medicine does not have all the answers. In the search for alternatives to their treatment they often ask their physician (or primary care giver) for advice on the use and efficacy of herbal medicine. These patients are frustrated with the condition they are in and/or their lack of a speedy recovery. They often blame their doctor and feel betrayed by the existing medical structure. In all probability, the doctor is suffering from the same frustrations, including the patient's lack of recovery and his own inability to help.

**Rest assured, it is not your doctor's fault.** When asked about herbal medicine (by the rare patient who has the courage to ask), the most often heard response is, *"I'm not sure if that stuff is any good"* or something along those lines. Patients are often discouraged from using herbals, and indeed, sometimes even vitamin and mineral supplements. The fault lies not in the doctor, but in his training.



These may seem to be strange opening words for a book designed to explain the use of herbal medicine, especially coming from the mouth of a naturopathic doctor. However, the reason I have chosen those words as an introduction to this book is to establish what I believe to be true in medicine today. **Most physicians care and truly want to assist their patients in recovering from illness or pain.**

Doctors work with the tools they learned in medical school. Unfortunately, medical schools are structured in a way that memorization takes the front seat while **deductive reasoning falls far behind.** This is due to the vast amount of data that has to be assimilated. The patient and physician both feel frustrated by the resulting medicinal approach, often referred to as “cookbook” medicine. This type of medicine is when you (the patient) describe the symptoms, the doctor recognizes those symptoms and then proceeds to prescribe the medicine and/or protocols he was taught. The reason this is dubbed “cookbook medicine” is because fewer and fewer doctors touch their patients; their hands are taking the back seat to their prescription book.

In order for students to graduate and become MD's they have no choice but to learn what has become the American Medical Association's “medicine of today.” The leaning of current medical schools is obvious when we look at a few facts. There are approximately 125 medical schools in the United States. Of those 125 schools only thirty of them require a course in nutrition. During four years of medical school, the average training in nutrition received by U.S. physicians is 2.5 hours. When you consider the fact that the risk of death from a heart attack for the average American male is 50%, while the risk of death from a heart attack for an average American, **vegetarian**, male is 4%, the need for nutritional counseling for physicians is obvious. While vegetarians are not necessarily the healthiest people, this is most definitely a telling statistic.

In the USA, medical treatment has become synonymous with prescription drugs, largely due to the influence of the tremendous sales forces and political influence of the pharmaceutical industry. Also, let's not forget the fact that in this day and age people want instant health. They want and expect to be made well (or better) immediately.

I've found in my practice more and more people saying they don't want to take pills, drugs, or even an aspirin. People are tired of, and discouraged about, putting synthetics and chemicals into their bodies. They're taking the time to educate themselves and exerting more control over their healthcare. The baby boomer generation is now facing mid-life and realizing the need to make significant changes, not wanting to wait until it is too late. **They're looking for alternatives and better ways to insure a longer, healthier life.**

People are moving more toward alternative medicinal approaches. It is the perception of the MD today that is helping this movement along. Tens of millions of people moving in the same direction is not a “craze,” it is a **change in attitude.** Medicine has always become what the people required from it. Now the people have let the health practitioners know, beyond any shadow of doubt, that they want and expect **complete** health care. The truth sometimes hurts, but it's better to learn and grow than to become extinct.

Although it might be hard to believe, the H.M.O.s could be responsible (more than any other factor) for moving forward the holistic approach towards medicine. Due to H.M.O.s controlling the health care of ever growing numbers of patients, their influence in medicine cannot be overemphasized. In the past few years, H.M.O.s have been experimenting with allowing their patients more freedom in choosing alternative medicine. What they have found has encouraged other H.M.O.s to follow suit. The faster the patient recovers, the less the cost is to the H.M.O. It doesn't take a wizard to realize the profit lies in the fastest recovery time. Eventually, these same organizations will realize that preventing disease in the first place creates the highest possible profit margin. Then the movement will be towards what we have been suggesting all along: **prevention.**

For the past fifteen years I have taught physicians (including family practitioners, anesthesiologists, orthopedic surgeons, and emergency care specialists) and can honestly say that the vast majority of them have been open to new concepts, if given the opportunity to understand them. As a matter of fact, most doctors who have been practicing for any length of time have learned how **little** they really know. All health care practitioners who are healers at heart are open to and crave new knowledge that will benefit their patients.



**The issue of whether herbal medicine works or not is well past the need for proof.** There has been study after study (with more going on today) that have verified the efficacy of herbs as medicines. During the years 1962-1973, of all prescriptions dispensed from community pharmacies, 25% contained a natural active constituent extracted from plant material. Any physician practicing today will recognize the drugs atropine, digitoxin, ephedrine, codeine, digoxin, morphine, quinidine, pilocarpine, pseudoephedrine, quinine, scopolamine, vincalcalcin and tubocurarine. These are **all plant derived prototype drugs** that are discussed in all pharmacology textbooks used today. Do they work? Ask your doctor. Just as importantly, the very longevity and consistency of their use is easily verified.

In Iraq, the grave site of a Neanderthal man was found to contain a large number of pollen granules. These had obviously come from family and friends spreading a bouquet of flowers all around and over the body. Analyzed some 60,000 years after this caveman's death, the pollen has been shown to belong to eight different genera of flowering plants, seven of which are still used medicinally today. Is this a coincidence? Even if we believe that Neanderthal man was an intellectually limited animal, the fact that he sought out and understood that certain plants made him feel better is no stretch of the imagination. Dogs, cats, apes and most other animals have been found to seek plants in the wild which are known to have medicinal properties. Most animals are also known to avoid plants which are toxic.

The advantages of conventional or synthetic pharmaceuticals over herbal medicines, lies in the fact that they are more concentrated in specific properties which at times causes them to work faster. Another advantage for synthetic or conventional medications is that they are very consistent in concentrations and dosages, more so than many herbal companies who are quick to take advantage of an extremely fast growing market. While discussing the efficacy of drugs, it would be tremendously one-sided not to mention that there are synthetics in use today for which no herbal equivalent has yet been found.

Having said this, I will now list the **advantages of herbal remedies**. Herbs always contain many active constituents which often act synergistically with each other to enhance their effect. When taken in an educated manner, herbals have virtually no side effects as compared to synthetic medications. In fact, herbs tend to enhance body systems rather than deplete them. For example, the daily use of Echinacea to enhance the immune system will not destroy the natural flora of the digestive tract. It will aid in fighting both viral and bacterial infections without leaving women prone to vaginal yeast infections. Unlike antibiotics, which are synthetic, the herb does not invite the development of antibiotic resistant bacteria. Herbs provide precursors for needed hormones and enzymes as well as furnish vital minerals and vitamins for the body to use. **There is no question that herbs have a large place in the health care of society today.**

If both conventional medicines and herbal remedies have a justified place in modern medicine, where did the great divide come from? Our very human nature has been a giant contributor to this separation of natural healing and modern medicine.

Native Americans had their Shaman and medicine men. African tribes had their medicine men, and European herbalists became famous for their own combinations and discoveries. Just as in medicine today, those that were "in" fought to protect their own special place in their society. Members of these groups maintained a great deal of secrecy to insure their importance within their own social structure. Information was often protected with religious zeal, and much knowledge has been lost due to this short sighted approach. This almost sounds like the MD's, Chiropractors, Naturopaths and Osteopaths of today, doesn't it?

More importantly, unlike "cookbook" medicine where doctors learn the symptoms of a patient then prescribe a drug, herbal medicine requires a more complex approach. **Herbalists must know of any herbal interactions and which herbs are required to produce the desired effect.** They adjust combinations to deal with several aspects of a disease process at once and treat the whole body not just a symptom. This requires not only education, but what some herbalists have dubbed a "dousing" instinct. This necessitates an intimate knowledge of plants and their products as well as a "feel" for the patient. Due to the amount of time this takes, you'll find very few herbalists or doctors of naturopathy who are able to see a new patient every fifteen minutes.

As important as the previous points were in retarding the growth and research of herbals, the single most important



factor has been the **growth and power of the pharmaceutical companies**. This began in the United States when country doctors found they did not have enough time to see patients and do the preparations of their own herbal remedies and other medications. This led to the development of apothecaries which prepared these remedies for the doctors. As the number of patients and doctors grew, so did the number of apothecaries. In a very short time these apothecaries started to develop their own formulas and recipes. Thus, the competition began and so did the patenting of medicines. Though some formulas and combinations can be protected by copyright or patent, **herbs cannot be protected**. They are natural substances, therefore, not able to be patented. Because of this, why bother to research them? **The money to be made is in the synthetics**.

Because of this, pharmaceutical companies started seeking new synthetic drugs that could be patent protected. Pharmaceutical companies only have one market for prescription drugs: **the MD's**. With medical doctors as their only market, they naturally do everything they can to insure their market coverage with "detail people." These people are salespersons that pharmaceutical companies hire in order to get their products used and into the hands of doctors. Because herbal companies are too small, there is no way that they can compete in sales and marketing with pharmaceutical companies. The United States has become destitute of MD's who understand herbals and their uses; unlike Europe, and most other countries, who use herbal medicines and still study them aggressively. The path down which doctors have been led could be described as "*better living through chemistry*". They know the shortcomings, but have received no training in other approaches that could be helpful to them.

How much have these factors affected herbal research and advances? **There are over 750,000 species of flowering plants and only an extremely small number have been thoroughly studied for potential drug value.**

Perhaps what will become even more significant is that when pharmaceutical companies study herbs, they are striving to isolate **one constituent** that they might be able to synthesize. The study of how all the constituents of the plants interact is often overlooked. Those who read this book will see how many phytochemicals from a single herb often work together on many levels to treat the same symptom.

Other factors also play a role in the slow growth of herbals in conventional medicine in this country. Herbal companies would love to label the products that they produce for physicians use and for the millions of customers they serve. Are they negligent in not doing so? **No!** The Food and Drug Administration has made it **impossible** for herbal manufacturers to label their products with any medicinal effects that the herbs possess.

In December, 1994, in Washington DC there was a symposium on Botanical Medicine sponsored by the National Institute of Health, the Office of Alternative Medicine, and the Food and Drug Administration. The purpose of this meeting was to discuss how herbs can best be integrated into conventional health care.

The main discussions of the meeting revolved around establishing the efficacy of herbs, how to regulate herbal medicine and whether herbs need to be classified as drugs. Devra Lee Davis, the senior advisor to the secretary of health, emphasized that the government would like to move forward with a scientific agenda to establish the credibility of herbal medicine. She pointed out that cancer therapy had not changed much since the 1960's and that herbal medicine contains great promise for the future of cancer treatment and other diseases.

Several of the discussions that followed pointed out that though herbs are useful in treating many diseases, they are also dangerous if they are improperly used or if there is no quality control over their manufacture.

Current regulations in the United States require the proper documentation of research to show the validity of effect and safety of a product before it is marketed as a drug. The FDA explained that according to the Dietary Supplement Bill that passed Congress in 1994, herbs are in the category of "dietary supplements" and can be marketed freely as long as there is no medicinal claim made on the label. **If there is a claim, then it is illegal to market the product unless it has been approved as either an over-the-counter or prescription drug.** The FDA then urged the people attending the conference to do responsible research and validate their claims. They then stated that they shared the same desire as the herbal medicine industry to find new medicines that are safe and relatively free of side effects.



The FDA assured the acupuncture community that they do not regulate medical practitioners and they have no problem with acupuncturists recommending herbs to their patients. However, they cautioned that herbal medicines from China have no quality control and that some Chinese products contain drugs or toxic ingredients that are dangerous or even fatal.

The obvious problem with this seemingly reasonable approach is that if herbal companies do the expensive and time consuming testing to prove the efficacy and safety of their products so that they can be labeled appropriately, they will no longer be able to market the products freely to the general public.

The primary example of herbal medicine that was debated at this conference was garlic. Proponents of herbal medicine at the meeting argued that if garlic is useful in lowering blood cholesterol then it would suddenly become a drug. The FDA responded by saying that was true, but only if garlic was available in bottles with claims on the label. In the absence of claims on the label, the FDA indicated that they have no jurisdiction.

**The obvious problem with this approach is that without doing their own reading and research on herbal supplements, neither doctors nor the general public will have any idea what is available and how it should be used.**

An excellent example of how these laws affect you is in the following: prostate enlargement (benign prostatic hyperplasia, or BPH) is a very common condition which affects over 50% of males over the age of forty. The results of this disorder are increased urinary frequency, night-time awakening to urinate, reduced urine flow during urination and possibly painful urination as the urine flow decreases. Although this is a common ailment, it can also be a very serious one if left untreated. As the condition worsens, the bladder outlet may become obstructed to the point that urine is retained in the blood, resulting in uremia.

An FDA approved drug called Proscar (Finasteride) was the first used in the treatment of BPH. It works by inhibiting the activity of the enzyme, 5 alpha-reductase, involved in testosterone metabolism (a male sex hormone). Proscar works by blocking the transformation of dihydrotestosterone, a very potent hormone derived from testosterone, within the prostate. It is dihydrotestosterone that causes overproduction of prostate cells which ultimately leads to prostate enlargement.

After a full year of drug therapy, less than 37% of the patients on Proscar will experience clinical improvement. It should also be noted that it takes at least six months before improvement from BHP might be expected by the patient. While on the drug, approximately 5% of patients will suffer from decreased libido, or impotence. Despite the shortcomings of Proscar, the manufacturer (Merck) has predicted sales will soon reach **one billion dollars** annually. Proscar costs the patient about \$75.00 per month. This is just one example, but is true of all the large pharmaceutical companies.

On the other hand, an extract of Saw Palmetto Berries (standardized to 85% to 95% fatty acids and sterols) has repeatedly shown to improve the symptoms of BPH. As in Proscar, the method of action is the same – inhibition of dihydrotestosterone (the compound which causes the prostate cells to multiply excessively). The major difference is that not only does Saw Palmetto Berry extract inhibit dihydrotestosterone's production, but it also inhibits the binding of dihydrotestosterone at the cellular binding sites. This difference translates into better clinical results for Saw Palmetto Berry extract.

Saw Palmetto Berry extract has shown in numerous studies to be effective in treating BPH in nearly 90% of patients. Proscar, by contrast, has shown itself to be effective in less than 37% of the patients. Add to this the fact that Proscar has side effects (Saw Palmetto has none) and Saw Palmetto costs less than one third of what Proscar costs and it starts working within a few weeks, as opposed to six months like Proscar.

Wouldn't you think the FDA would surely want Saw Palmetto available for consumers? **Wrong!** In 1990 the FDA rejected an application to have Saw Palmetto approved for the treatment of BPH. What this means to you, the patient, is this: even though Saw Palmetto is safer, more effective and less expensive, distributors of Saw Palmetto cannot make any claims for their products.



In Europe, Saw Palmetto Berry extracts are widely used by physicians as medicines. In the USA, extracts identical to those prescribed in Europe are available on the shelves at health food stores and sold as food supplements for which **NO CLAIMS CAN BE MADE.**



*Dr. Michael Farley, ND*

This book will help the consumer of herbs, as well as physicians, learn to use herbs responsibly and knowledgeably. It will also enable the patient and physician to work together toward a safe program that will benefit all parties.

**“The physician’s duty is to heal the sick, not to enrich the apothecary.”** This observation was made by an angry young German-Swiss doctor in the early sixteenth century. His name was Philippus Theophrastus Bombastus von Hohenheim (1493-1541) although he was more commonly known as Paracelsus. He was the product of a revolutionary age in medicine which produced Calvin (1509-1564) Luther (1482-1546) and Zwingli (1484-1531) among others. Just as others of his day were castigating the abuses and corruptness of the medieval church, Paracelsus and others like him devoted their energies against the glaring abuses of medicine in his time.

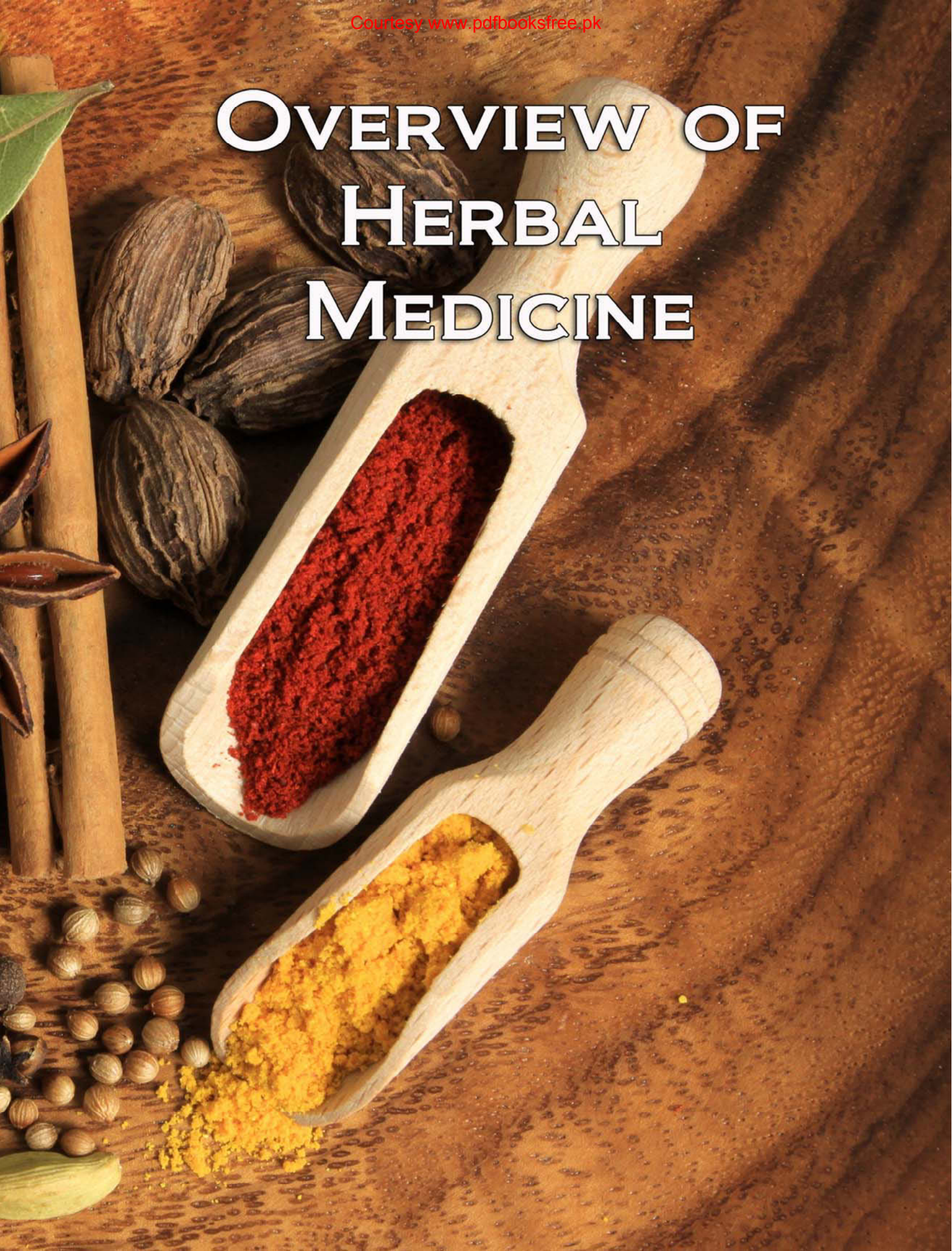
**I am hopeful that this book will aid all concerned in making the right decisions concerning their health.**







# OVERVIEW OF HERBAL MEDICINE





# HERBS VS. DRUGS

HERBS  
VS  
DRUGS

*"The fruit of the tree shall be for food, and the leaves for medicine."*  
Ezekiel 47:12.

There are literally thousands of plant species, and many of them have medicinal uses. Medicinal herbs have a long history in treating disease. People have used extracts from plants for thousands of years to treat their ills, the Egyptians were using herbal remedies some 3500 years ago, while there is evidence other ancient peoples (Persians, Chinese, and Indians) have used medicinal herbs for centuries.

While medicinal plants are the actual plants themselves, plant medicines are preparations made from those plants. Plant medicines are the most widely used medicines in the world today. An estimated eighty percent (80%) of the world's population employs herbs as primary medicines. And while drugstore shelves in the US are stocked mostly with synthetic remedies, in other parts of the world the situation is quite different.

However, in the USA, interest in herbs as medicine is on the rise again and the interest is primarily from Big Pharma, which is always looking for "new drugs" to treat diseases. Considering the very long traditional use of medicinal herbs and the large body of evidence of their effectiveness, why is it that we are not generally encouraged to use traditional medicinal herbs, instead of synthetic, incomplete copies of herbs, called drugs, considering the millions of dollars being spent looking for these seemingly elusive substances?

Medicinal herbs are considered treasures when it comes to ancient cultures and herbalists, and many so-called weeds are worth their weight in gold. Dandelion, Comfrey, Digitalis (Foxglove), the Poppy, Milk Thistle, Stinging nettle, and many others, have well-researched and established medicinal qualities that have few if any rivals in the pharmaceutical industry. Many of them in fact, form the bases of



pharmaceutical drugs. Research into the medicinal herbs' properties such as the humble Dandelion is currently being undertaken by scientists at the Royal Botanical Gardens, in Kew, west London, who believe it could be the source of a life-saving drug for cancer patients. Early tests suggest that it could hold the key to warding off cancer, which kills tens of thousands of people every year.

Herbalists try to find the underlying cause of an illness rather than treat the individual symptoms. Herbal "synergy" is the key principle of herbal medicine. Their remedies are extracted from leaves, petals and roots of plants and are a complex mixture of lots of different compounds. While a conventional pharmaceutical will



usually be a single active ingredient, the idea of herbal "synergy" explains that the hundreds if not thousands of constituents of a plant extract all work together to treat an illness.

For example, ephedrine an early antiasthma drug was first isolated from the herb Ephedra, traditionally used to treat chest complaints. One of the side-effects of ephedrine is that it raises the blood pressure. Herbalists point out that among the many compounds found in the plant itself is one that lowers blood pressure. So, the herbal remedy contains a compound to treat the chest but also to counteract the side effects of that compound.

So, why is there this need for isolating the "active ingredients"? I can understand the need for the scientific process of establishing the fact that particular medicinal herbs work on a particular disease, pathogen or whatever, and the need to know why and how it does so. But, I also understand the process of choosing and prescribing **COMBINATIONS** of medicinal herbs, which have a synergistic effect to treat not just the disease, but any underlying condition as well as the person with the disease – That is a big difference and not one that is easily tested using standard scientific methodologies.

Rather than trying to isolate the active ingredient(s), why not test these medicinal herbs, utilizing the knowledge of professional herbalists, on patients in vivo, using the myriad of technology available to researchers and medical diagnosticians to see how and why these medicinal herbs work in living, breathing patients, rather than in a test tube or on laboratory rats and mice (which, by the way, are not humans and have a different physiology).

Big Pharma is not really interested in the effects of the medicinal herbs as a whole, but rather in whether they can isolate a therapeutic substance which can then be manufactured cheaply and marketed as a new drug! **Cha Ching!** Follow the **MONEY!**

The problem with this approach is however, that medicinal herbs like Comfrey, Dandelion and other medicinal herbs usually contain hundreds if not thousands of chemical compounds that interact, yet many of which are not yet understood and cannot be manufactured. This is why the manufactured drugs, based on so-called active ingredients, often do not work or produce side effects.

Aspirin is a classic case in point. Salicylic acid is the active ingredient in Aspirin tablets, and was first isolated from the bark of the White Willow tree. It is a relatively simple compound to make synthetically, however, Aspirin is known for its ability to cause stomach irritation and in some cases ulceration of the stomach wall.

The herbal extract from the bark of the White Willow tree generally does not cause stomach irritation due to other, so called 'non-active ingredients' contained in the bark, which function to protect the lining of the stomach thereby preventing ulceration of the stomach wall.

Ask yourself, which would I choose – Side effects, or no side effects? – It's a very simple answer. Isn't it? So why then are medicinal herbs not used more commonly and why do we have pharmaceutical impostors stuffed down our throats? **The answer is, that there's little or no money in medicinal herbs for Big Pharma!** They, the medicinal herbs, have already been invented, they grow easily, they multiply readily and for the most part, they're freely available.

Furthermore, correctly prescribed and formulated herbal compounds generally resolve the health problem of the patient over a period of time, leaving no requirement to keep taking the preparation – that means **ZERO** repeat sales... **ZERO** ongoing prescriptions... **ZERO** ongoing health problems to "treat."

Big Pharma, on the other hand, primarily aims to relieve symptoms. **This results in continual consultations, repeat sales, and perpetual health problems.** Which do you think is a more profitable proposition?

In Chinese medicine there is a strict order of hierarchy in any herbal prescription, which requires considerable depth of knowledge and experience on the physician's part. The fact that the primary or principle herb has active ingredients, which has a specific physiological effect, does not mean the other herbs are not necessary in the preparation. This is a fact seemingly ignored by Big Pharma in its need to manufacture "newer and better" drugs.

Knowing that medicinal herbs are so effective, that these plants potentially hold the key to many diseases, are inexpensive and have proven their worth time and time again over millennia, why is it that herbal medicine is still not in the forefront of medical treatments, and is considered by many orthodox medical professionals and Big Pharma representatives as "**hocus pocus**"?

Could it be that the "powers that be" are just chomping at the bit to see just how far the people can be pushed and cajoled, lied to and deceived before they explode? Big Pharma would just love to see 100% of everything, including our food sources, declared as "medicine" to be had only by **prescription**.





# ACTIVE CONSTITUENTS OF MEDICINAL HERBS

Medical herbs contain active constituents (principles) or parts which have a direct effect on the human body. These constituents have physiological effects on the body which gives them their medicinal effect. There are two kinds of active constituents:

1. Products of primary metabolism, chiefly carbohydrates (such as sugars and starches) amino acids and fatty oils. These substances are produced in the plants through photosynthesis.
2. Products of secondary metabolism (processes resulting in the production of chemicals from the primary metabolites). Though these products often seem to be relatively useless to the plant, they often are very effective medicines in the human body. These constituents include essential (volatile) oils, glycosides, terpenoids, and alkaline substances called alkaloids. A few of these alkaloids include morphine from the Opium Poppy, and ergotamine from the Ergot fungus.

In this section, we will break down each plant into its constituents, but in doing so, it must be remembered that medicinally active constituents usually occur in groups of closely related compounds, together with other substances which (in all probability) potentiate each other's effect on the healing process. **This synergistic effect is one of the herbalist's greatest advantages over several conventional medicines.** Though various synthetic drugs may be more potent and concentrated, they often have severe side effects.

Herbalists have learned that by using the synergy inherent in plant medicines, they are able to effect substantial medicinal effects without the detrimental side effects of many synthetic or prescription medications. Another advantage that herbalists enjoy is in herbs such as Ginger, which reduces inflammation from flu like symptoms at the same time providing anti viral compounds and compounds to reduce nausea... all of this from just one herb, with no harmful side effects.

The active constituents of plant drugs belong to several different chemical groups, among them are: **alkaloids, glycosides, saponins, bitter compounds, tannins, essential oils, volatile oils, terpenes, resins, fatty oils, mucilage, pectines, mineral compounds, organic acids, vitamins and carotenoids.**

## ALKALOIDS

Alkaloids are a diverse group of compounds with alkaline properties. The physiological effects of alkaloids center on the circulatory system and the nervous system. Most herbs in this group have a bitter flavor and are poisonous to varying degrees. There are thousands of alkaloids known and many are used medically. Atropine, codeine, morphine and caffeine are all alkaloids. Plant families rich in alkaloids include the Amaryllidaceae (daffodils), Apocynaceae (Periwinkles),



DAFFODIL  
(Amaryllidaceae)

Leguminosae (peas), Liliaceae (lilies), Papaveraceae (poppies), Rubiaceae (bedstraws), & Solanaceae (nightshade).

## GLYCOSIDES

Glycosides are products of secondary metabolism in plants. When they are hydrolyzed glycosides split into two parts, one of several sugars (glucose, fructose, etc.) which are the glycone component, and the non sugar (aglycone) component. Each glycoside is associated with a specific enzyme in the plant. These enzymes are stored in cells at different locations of the plant. When the plant part is chewed or crushed, the cell walls are broken and the enzymes come in contact with the glycoside, hydrolysis occurs and the aglycone is activated. The sugars act synergistically by increasing the solubility of the glycoside and its absorption into the body, as well as facilitating its transportation to specific organs.

Glycosides include some of the most effective plant drugs available, and some of the plants in this group are the most toxic known. Glycosides are classified by the chemical composition of their aglycone part:

1. **Cardiac glycosides:** they affect the contraction of the heart muscle and are used to correct arrhythmias in the heartbeat. They're divided into two groups -- bufadienolides (found in Christmas rose) and cardenolides (found in foxglove, lily of the valley, and oleander).
2. **Cyanogenic glycosides:** in these the glycosides, the aglycone, is a cyanohydrin compound bonded to a sugar. Upon hydrolysis in the presence of an enzyme (such as saliva



HONEYSUCKLE  
(Caprifoliaceae)

in the mouth) prussic acid (hydrogen cyanide) is liberated in minute or larger amounts. Cyanogenic glycosides have antispasmodic, purgative and sedative actions to varying degrees. They are characteristic of the families Caprifoliaceae (Honeysuckles) Linaceae (Flaxes).

3. **Mustard glycosides (glucosinolates):** these glycosides contain bonded sulfur and are characteristic of the Cruciferae (cabbage) family. In plants, they occur in conjunction with the enzyme myrosinase. When broken down, mustard oils are liberated. These are excellent antiseptics due to the sulfur compounds. Mustard glycosides are found in White mustard

and Horseradish root to name a few.

4. **Phenolic glycosides:** Phenolic glycosides are divided into four main groups;
  - a. Simple phenolic glycosides. These compounds contain a simple phenol. They share a characteristic effect and are aromatic. Medicinally they include salicylic derivatives as are found in Willow Bark and Meadowsweet as well as methyl arbutin and arbutin found in the leaves of Bilberry and Barberry.
  
- b. Coumarin glycosides. These compounds are phenyl propane derivatives. These herbs and plants have a sweet smell like new mown hay. There are several coumarin glycosides. Hydroxycoumarins are found in Horse Chestnut and Ash. Aesculin is the hydroxycoumarin found in Horse Chestnut bark. It has been found to strengthen the capillary walls. Aesculoside is another coumarin found in Horse Chestnut. It absorbs ultraviolet light and is used in sunscreen applications.
- c. Anthraquinone glycoside. All of these are aromatic. These glycosides are pigmented phenolic compounds which readily break down to lose their sugar molecules. Taken internally, many of these phenolic compounds exert a laxative effect, varying from mild to severe.
- d. Flavonoid glycosides. These are aromatic phenolic compounds which include anthocyanins, largely responsible for the yellow blue and red color of flowers, and bioflavonoids. Bioflavonoids are usually yellow in color as is the dried root of licorice. Rutin from Buckwheat and Rue is exceptionally important medically because, like coumarin aesculin, it affects the permeability and strength of the capillary walls. They are used to treat hypertension and other various heart disorders. The flavonoids of Hawthorns are also hypotensives and cardiotonics.
5. **Saponins:** consist of a triterpene aglycone (sapogenin) and a sugar group (glucose or galactose). These glycosides are often associated with cardiac glycosides. The chemical composition of saponins is very similar to that of sex hormones and some saponin containing herbs are used in the manufacture of birth control pills.



**BARBERRY**  
(Berberidaceae)



**DAISY**  
(Compositae)

## TANNINS

Tannins are complex polyphenolic compounds that all have the ability to coagulate proteins, alkaloids and heavy metals. This is true, however, only as long as they are fresh enough to dissolve in water. The two types of tannins are condensed tannins (polymers derived from flavonoids) and hydrolysable tannins (esters of gallic acid and glycosides of these esters). Tannins have astringent and antiseptic properties but their chief value in medicine lies in their ability to precipitate proteins in mucous membranes and other tissues, causing a thin layer of coagulation to form. This precipitated matter destroys bacteria by depriving them of nutrition, aiding in the healing of wounds and inflamed mucosa. Tannins also decrease pain by decreasing sensitivity to the inflamed area. Tannins are used in medicines for diarrhea, bronchitis, wounds, hemorrhoids, and mouth and gum infections. Tannins are plentiful in Betulaceae (birch), Ericaceae (willow), and Rosaceae (rose).



**ROSE**  
(Rosaceae)



## ESSENTIAL OILS

Essential oils (volatile oils) are liquid components of plant cells. Unlike fatty or fixed oils, they do not leave a permanent mark on paper. Essential oils primary constituents are complex mixtures of terpenoid substances. Exposed to air or light essential oils oxidize and become less effective.

Medicinally essential oils act as digestive tonics, antiseptics, carminatives, anthelmics, antirheumatics, rubefacients and anti-inflammatories. Many of the essential oils are used for flavoring and are also included in proprietary medicines. These include menthol, thymol and others.

## FATTY (FIXED) OILS

Fatty oils from plants are mixtures of triglycerides, which are water insoluble, but dissolve in organic solvents. Many plant and vegetable oils contain substantial amounts of unsaturated fatty acids and are liquid at room temperature but congeal and become opaque at cooler temperatures. A few of these fatty oils used in medicine include almond oil, corn oil, flax oil, and castor oil.



ALMOND OIL

## MUCILAGES AND PECTINS

Plant mucilages are amorphous mixtures of polysaccharides that dissolve in water to form extremely viscous colloid systems. In cold water they swell and form a slimy gel. In hot water they dissolve, then gel when the water cools. Most are formed by the cell walls of plants. When mucilages pass through the digestive or respiratory tract they leave a thin protective coating over mucous membranes that protect the membranes from irritation. For this reason they are used to treat infections of the chest, intestine and throat. In small doses they slow the peristalsis thereby having an antidiarrheal effect. In large doses they have just the opposite effect and are used to treat constipation. In large doses they are an extremely effective laxative. Pectins (found in quinces, for example) are classified as plant mucilages because both are polysaccharides and form gels in the same way. They are also used in the treatment of diarrhea.



QUINCE FRUIT  
(*Cydonia oblonga*)

## TERPENES

A hydrocarbon derived from essential oils, resins and other vegetable aromatic products.

## VITAMINS

Herbs consistently have many minerals and trace elements that the body requires. It will be noted when you are looking at the herb constituents that they contain all of the phytochemicals (plant chemicals) and trace elements necessary to form a complete supplementary system to assist their actions. They contain very small amounts of vitamins for the most part. For vitamin supplementation it is much easier to get high vitamin dosages from multiple vitamins than from herbs.







# TYPES OF HERBAL PREPARATIONS

Herbs have been prepared in many different forms over the years. Each method of preparation has its specific benefits and methods of action. The following are the most common preparations.

## BOLUS

A bolus is a suppository used as an internal poultice in the vagina or rectum. They are used to draw toxic substances from the body or to carry healing agents to the body. The bolus is made by adding powdered herbs to cocoa butter and mixing them into a thick consistency. After the mixture has been shaped they are placed in a refrigerator to harden.

The most common boluses are made with herbs that have astringent or demulcent properties. They are usually applied at night so that when they are inserted the cocoa butter melts and releases the herbs to the affected area or for absorption through the mucous membranes. A few herbs that are commonly used in bolus form are Bayberry Bark, Slippery Elm, Garlic, Chaparral and Golden Seal.

## CAPSULES

Gelatin capsules provide an excellent method for taking herbs in powdered form. For herbs that are bitter tasting or very mucilaginous, capsules are by far the easiest method. The disadvantage of herbs in capsule form is their freshness and content. If you are buying herbs in capsule form, be sure that the

supplier is honest and knowledgeable. The reason for this is that many herbs in capsule form deteriorate in a couple of months, and often bottles remain on suppliers shelves for longer periods than that, before new shipments arrive.



## COMPRESSES (FOMENTATION)

Herbal compresses are made by placing one or two tablespoons of the herb into hot water. A cotton pad or gauze is dipped in the hot water, and then applied to the desired area. After the pad has cooled it is replaced by another warm compress.

Compresses are used when the herbs are very strong and slow absorption through the skin (of limited amounts) is desired, or when heat is needed in conjunction with the herb. They're also used with herbs on swollen or stiff joints or for cuts and wounds.

## DECOCTION

Decoctions are used when the active constituents of the herb are not readily soluble in cold or boiling water. They are made by finely grating or chopping the herb and slowly simmering the mixture from five to twenty minutes. Decoctions must always be strained while hot so that the active constituents (which have separated) are available in the solution. This method is especially valuable when extracting essential minerals or alkaloids from the herb.

## EXTRACTS

Herbal extracts are made so that you can apply herbs or herbal mixtures externally. They are made by placing about four ounces of the dried herb into a pint of vinegar, alcohol, olive oil or almond oil. The mixture is then shaken daily. In about fifteen days the extract will be ready to use. Extracts are often used as massage oils and liniments. They usually contain antispasmodic herbs such as Lobelia, or stimulating herbs such as Cayenne.



## INFUSIONS

Infusions are made by pouring hot or boiling water over the crude herb or powdered herb. The usual amounts are 1-1/2 ounce of fresh herb to one pint of water. To use the infusion, strain the liquid into a cup and drink warm.

## LYOPHILIZATION

Lyophilization is the newest method of herbal stabilization and usage. In this product the herb is rapidly freeze dried under vacuum. This process is excellent because it retains all of the herbal constituents in tact and allows much longer storage times than is possible for the fresh herb. Very few companies have the capabilities for this process; however, this is by far the best method of herbal preservation to date for good quality herbs that have all the active constituents available.

## OINTMENTS

When the active constituents of herbs are needed to remain in contact with the skin for a prolonged period of time, ointments are the preferred method. Ointments are prepared by heating a petroleum based product, such as Vaseline or a similar product, and combining it with one or two heaping tablespoons of the herb. This mixture is thoroughly stirred and then strained. The resulting ointment is then kept in a cool place until needed.



## OILS

Oils are used primarily for herbs that are aromatics. In these herbs the essential oils are the primary constituents. Since the essential oils often break down in light, they should be stored in dark containers at all times. Oils are prepared by macerating the fresh or dried herb, adding olive or sesame oil, and then placing the mixture in a warm, dark place for about five days. The oil is then strained and bottled. If time is important, the oils can be extracted more quickly by gently heating the mixture in a pan for about an hour, then strain and bottle it. Do not boil the mixture. The most common herbs used in oils include Eucalyptus, Peppermint, Spearmint, Anise and other spices.



## POULTICE

A poultice is made with a fresh mash of the herb, wrapped in cotton or gauze, and then applied directly to the affected area. The poultice can be applied hot or cold depending on the herb and what condition the herb is treating. Poultices are primarily used to treat abscesses, bites and boils. The usual herbs used in poultices include Comfrey, Aloe Vera, Goldenseal and Echinacea.



## POWDERS

Powders are made from finely grinding the dried herb. Powdered herbs can be used over food, in teas or in capsule form. The powdered herb is an excellent way to adjust herbal dosage and to slowly adapt the body to new herbs.



## SALVES

Salves are made by bringing dried herbs to a simmer for thirty minutes. Strain the mixture, and then add it to an equal amount of olive or safflower oil. Simmer this mixture until all the water has evaporated and only the oil is left. To the remaining oil add beeswax (to give the salve the appropriate consistency) and store in a cool, dark place. Salves will normally remain good for about one year.



## SYRUPS

Syrups are often used for treating coughs, sore throats, and mucous congestion. They are made by simmering two ounces of the dried herb in a quart of water until only one pint remains. Add honey or glycerin while still warm. Other herbs with medicinal properties of their own, can be added to flavor the syrup such as Licorice, Wild Cherry or Anise.



## TINCTURES

Tinctures are concentrated solutions of herbal extracts in an alcohol base. Tinctures are good because they have a long shelf life, some which last up to seven years or more. Many herbal tinctures can also be used as a liniment. The herbs used in tinctures are generally those that are strong and need only a few drops to be effective. They are usually mixed in teas and actually contain little or no alcohol if added to hot water. Hot water evaporates most of the alcohol out of the tea very quickly. The major disadvantage of tinctures is using them in herbal mixtures that contain polysaccharides, which are broken down by alcohol. Echinacea is an excellent example of an herb which, to have the benefit of all the ingredients (but still retaining most of its effective constituents) should not be taken in tincture form if the polysaccharides are a required part for the illness being addressed.





# MEDICAL EFFECTS

For the intended purpose of this book, we have listed the herbs under the different medical effects which the herbs possess, as well as the chemical constituents that are responsible for these effects. You will find several herbs listed more than once. As will you will see, many herbs serve several functions and contain diverse chemical constituents.

It is not the purpose of this book to give dosages of the herbs to be used. This we leave to the herbal manufacturers. All responsible herbal companies have included on the labels recommended dosages. Ask a qualified Naturopathic Doctor, trained herbalist or knowledgeable pharmacist (familiar with herbs) for the names of reputable companies who manufacture high quality herbal supplements. Take the time to check for reliable herb sources, and try, if possible, to stay with companies in the United States where quality control is much better than in many other countries (such as China).

The following is a list of the most common terms used by herbalists. It is helpful to understand the terminology to better understand what is being discussed in this and other herbal books. When using herbal remedies it is important to use herbs that will accomplish as many goals as possible. You will see that single herbs may cause many actions. Determining which multiple actions are required and safe should be discussed with a health care professional. It is also important, when other herbs are needed for additional effects, to choose combinations which act synergistically.



**ANALGESIC** – Substances which relieve all types of moderate pain. Herbs with this property include Feverfew, Elder, White Willow, and Balm.

**ANODYNE** – Substances which relieve severe types of pain. These substances are very powerful and should be used judiciously. Included in this group are Valerian, Mistletoe and Marijuana.

**ANTHELMINTIC (VERMIFUGE)** – Substances that kill and help expel intestinal and stomach worms. Herbs with this property include Garlic, Wormwood, Mugwort, Onion, and Black Walnut.

**ANTIASTHMATIC AND BRONCHIAL DILATOR** – Substances that relieve bronchial spasms for both asthma, and bronchitis. Herbs with this property include Coltsfoot, Ma Huang, Valerian, Ephedra, and Mormon.

**ANTIBIOTIC (ANTIBACTERIAL)** – Substances that kill and stop the growth of bacteria. Herbs with this property include Echinacea, Garlic, Chaparral and Goldenseal.

**ANTIDIAPHORETIC (ANHYDROTIC)** – Substances which stop excessive sweating. Herbs with this property include Horehound, Sage, Valerian, Walnut, and Oak.

**ANTIPYRETIC** – Substances that lowers or prevents fevers, infections or inflammations. Herbs with this property include Feverfew, Catnip and Yarrow.

**ANTIRHEUMATIC** – Substances which alleviates rheumatic

symptoms such as stiff and painful joints and muscles. Herbs with these properties include Motherwort, Nettle and Black Cohosh.

**ANTISCLEROTIC** – Substances which reduce the amount of fat carried in the blood and help reverse or prevent arterial sclerotic changes. Herbs with these properties include Garlic, Hawthorn, Mistletoe and Aloe.

**ANTISEPTIC** – Substances which kills bacteria and prevents its growth. These are used topically for the treatment of wounds, cuts, sores and stings. Herbs with these properties include Yunan Pao, Calendula, Garlic Oil and Goldenseal.

**ANTISPASMODIC** – Substances which prevent or reduce muscle spasticity. Many herbal combinations which are prepared for pain relief will contain one or more herbs with these properties. Herbs with these characteristics include Valerian, Black Cohosh, Scullcap, Dong Quai and Lobelia.

**ANTITUMOR** – Substances which have been shown to inhibit tumor growth or kill tumorous cells. Herbs with these properties include Chaparral, Mistletoe, Red Clover, Astragalus and Suma.

**ANTITUSSIVE** – Substances that relieve or prevent coughing. The most successful of these substances usually contain a high mucilage content to assist in soothing the mucous membranes at the same time. Herbs with these properties include Marshmallow, Anise, Mullein and Licorice.

**ANTIVIRAL** – Substances which kill or help increase the body's immunity to viruses. Herbs with these properties include Echinacea, Garlic and St. John's Wort.

**APERIENT** – Substances which are very mild in their laxative action. Herbs in this group include most bitter herbs in general, Yellow Dock and Cascara sagrada.

**AROMATIC** – Substances which have a fragrant smell and usually a pleasant taste. They are antiseptic, and often used to give flavors to both medicines and foods. Herbs with this quality include Chamomile, Anise, and Licorice.

**ASTRINGENT** – Substances that constrict blood vessels, thereby reducing the blood flow and at the same time tend to inhibit mucous secretions and tighten the skin. Herbs with these properties include Bilberry, Burdock, Comfrey, Sage, Walnut and St. John's Wort.

**BITTERS** – Substances that stimulate the appetite by affecting the secretion of digestive juices. Herbs with this quality include Caraway, Peppermint, Blessed Thistle, and Gentian.

**CARDIAC** – Substances which affect heart action. They include very toxic cardiac glycosides and should be used only under medical supervision. Herbs with these properties include Foxglove and Hawthorn.

**CARMINATIVE** – Substances that relieve flatulence, abdominal and bowel gas pain. Herbs with these properties include Fennel, Anise, Chamomile, Peppermint and Sage.

**CHOLAGOGUE** – Substances which stimulate release of gall from the gall bladder and bile ducts into the duodenum. Herbs which have this property include Peppermint, Marjoram and Mullein.

**CHOLERETIC** – Substances which stimulate bile production in the liver. Herbs with these properties include Barberry and Greater Burdock.

**DEMULCENT** – Substances which soothe and moisten, usually with mucilage, mucous membrane inflammations found in the kidneys and bladder. Herbs with this property include Comfrey, Licorice, Marshmallow and Slippery Elm.

**DIAPHORETIC** – Substances which increase or induces

sweating. Herbs with this property include Greater Burdock and Mullein.

**DIURETIC** – Substances that eliminate water from the body by increasing urine production. These herbs also tend to have an antiseptic affect on the urinary tract and often are used in the treatment of kidney stones and uroliths. Herbs with these properties include Bilberry, Goldenrod, Greater Burdock, Juniper and Parsley.

**EMETIC** – Substances that induce vomiting. Herbs with this property include Lobelia, Licorice, Ipecac and Peppermint.

**EMMENAGOGUE** – Substances which are used to assist or regulate menstruation. These substances often cause the menstruation to start early and with increased flow. They were often used for birth control by the Native Americans. These herbs should be avoided if pregnant. Herbs in this group include Black Cohosh and Mugwort.

**EMOLLIENT** – These substances are used to soften, protect and soothe the skin. Herbs with these properties include Chickweed, Comfrey and Slippery Elm.

**EXPECTORANT** – Substances which promote the formation and expulsion of mucous from the airways. These herbs also tend to promote mucous formation and have an antiseptic effect on the airways as well. Herbs with these properties include Marshmallow, Mullein, Lungwort, Anise and Sage.

**FEBRIFUGE** – Substances which reduce fevers (Antipyretic). Herbs in this group include Feverfew and Honeysuckle.

**GALACTAGOGUE** – Substances which increase mothers milk production. Herbs with this property include Basil, Fennel, Fenugreek and Caraway.

**GYNAECOLOGIC** – Substances that affect the female reproductive system. Some relieve muscle spasms associated with menstruation, and others have a direct or indirect affect on the uterus and are used to check heavy menstrual bleeding or other irregularities. Herbs in this group include Motherwort, Chamomile and Vitex.

**HEMOSTATIC** – Substances which control bleeding by causing vaso constriction. Herbs with these properties include Yunan Pao, Comfrey, Sage and Horsetail.

**HEPATIC** – Substances which cleans the liver or restores liver functions. These herbs are used in the treatment of hepatitis, jaundice and cirrhosis. Herbs in this group include Milk Thistle, Barberry and Gentian.

**HYPERTENSIVE** – Substances which increase blood pressure. These should only be used with supervision by a qualified doctor. Herbs with these properties include Shepards Purse and Broom.

**HYPNOTIC** – Substances which induce sleep. Herbs with these properties include Motherwort, Valerian, Vervain, Balm and Chamomile.

**HYPOGLYCEMIC** – Substances that reduce blood sugar levels. Diabetics should not use these without the professional guidance of a qualified health care practitioner. Herbs that have this property include Bilberry, Chicory, Burdock, Fenugreek and Stinging Nettle.

**HYPOTENSIVE** – Substances which reduce blood pressure. These herbs should be monitored on a regular basis and used in conjunction with a healthy diet. They can be used along with prescription medications when professionally monitored. Herbs which have this property include Hawthorn, Garlic, Hop, Onion and Mistletoe.

**LAXATIVE (APERIENT OR APERITIVE)** – Substances which loosen the bowels and relieve constipation. Herbs with this quality include Barberry, Buckthorn, Dandelion, Psyllium Seed and Licorice.

**LITHOTROPIC** – Substances which dissolve and eliminate urinary and gall bladder stones. Herbs with this property include Parsley, Nettle, Dandelion, and Buchu.

**NERVINE** – Substances which calms, quiets and nourishes the nervous system. Herbs with these qualities include Valerian, Scullcap and Lobelia.

**OXYTIC** – Substances which stimulate uterine contractions. Herbs with this property include Black Cohosh, Squaw Vine and Motherwort.

**PARASITICIDE** – Substance which kills and removes parasites from the digestive tract or skin. Herbs with this property include Wormwood, Chaparral, Cloves and Garlic.

**PARTURIENT** – Substances which helps prepare the uterus for childbirth during the last trimester of pregnancy. Herbs with this property include Raspberry, Squaw vine, and Black Cohosh. These herbs should not be used without qualified medical supervision during pregnancy.

**PROBIOTIC** – Substances which enhance the body's own ability to fight diseases. These substances usually stimulate the production of interferon to fight virus infections, or increase the body's production of white blood cells to aid in fighting infection. Herbs with these properties include Echinacea, Astragalus and St. John=s Wort.

**PURGATIVE** – Substances which act as a very strong laxative. Herbs in this group include Rhubarb and Mandrake.

**REJUVENATIVE** – Substances which are said to reduce the effects of aging, such as loss of strength, endurance, and general well being. Herbs with these properties include American Ginseng, Licorice, Yunan Pao, Fo-Ti and Dong Quai.

**RUBEFACIENT** – Substances which increase the flow of blood to the skin. These herbs are used primarily for aches and sprains as well as arthritis and rheumatism. Herbs in this group include Black Pepper, Cayenne and Mustard.

**SEDATIVE (TRANQUILIZERS)** – Substances that soothe and calm. These herbs are used to relieve anxiety and strain. Herbs in this group include Balm, Chamomile, Heather, Hop, Scullcap and Valerian.

**SIALAGOGUE** – Substances which increase the flow of saliva. An example of this type of herb is Echinacea.

**STIMULANT** – Substances which stimulate the circulatory and respiratory systems. Herbs in this category include Cayenne, Ginger, Cinnamon and Mormon.

**STOMACHIC** – Substances which aid in the relief of stomach disorders. They are sometimes described as digestive tonics. Herbs with these properties include Hop, Balm, Blackberry, Blessed Thistle and Peppermint.

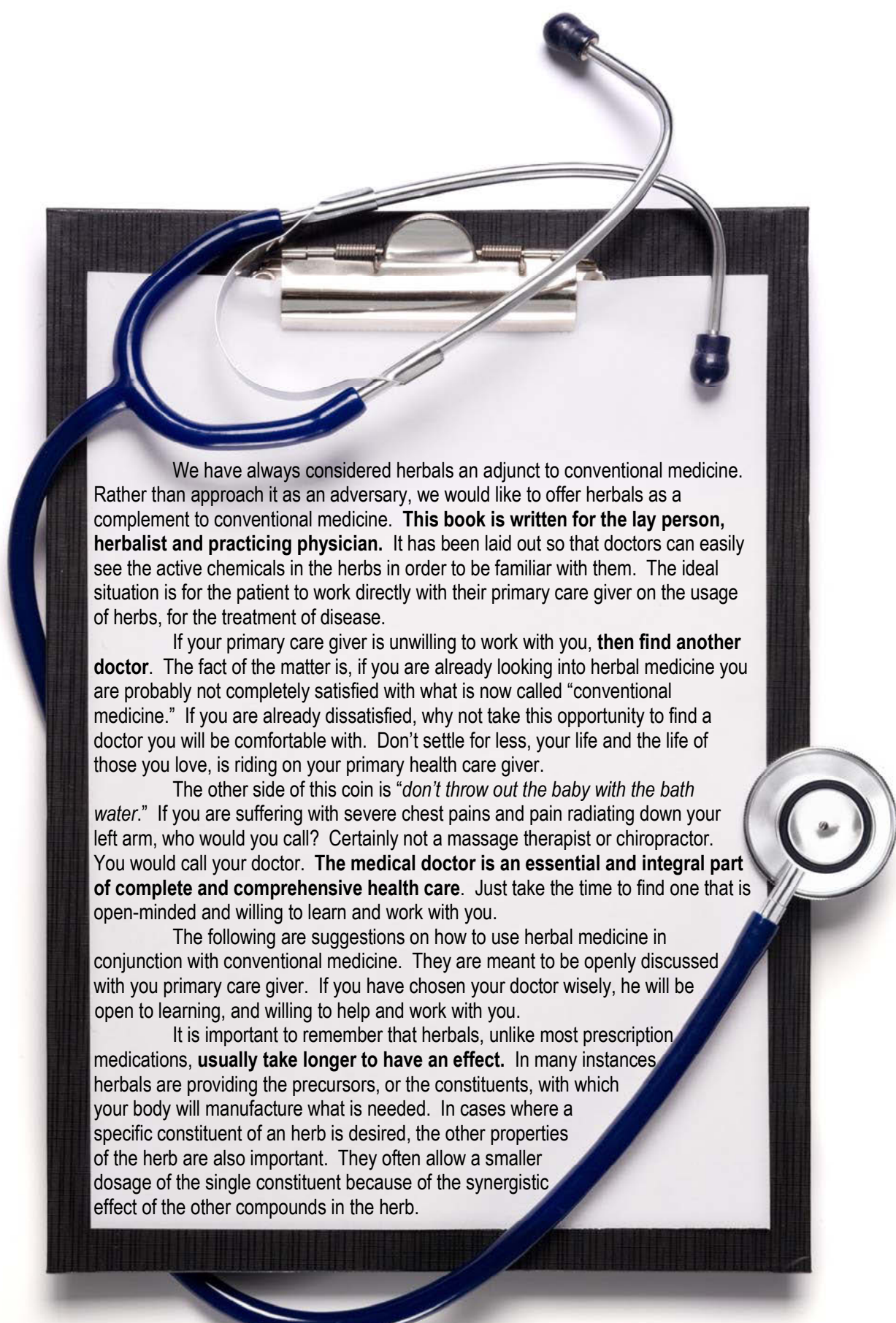
**VERMIFUGE** – Substances which kill and expel intestinal and stomach parasites. Herbs with these properties include Wormwood, Garlic, Cloves and Black Walnut Bark.

**VULNERARIES** – Substances that reduce inflammation and promote healing of wounds and skin disorders. Herbs in this group include Comfrey, Greater Burdock, Marshmallow, Horsetail and Lady's Mantle.





# COMPLEMENTARY MEDICINE



We have always considered herbals an adjunct to conventional medicine. Rather than approach it as an adversary, we would like to offer herbals as a complement to conventional medicine. **This book is written for the lay person, herbalist and practicing physician.** It has been laid out so that doctors can easily see the active chemicals in the herbs in order to be familiar with them. The ideal situation is for the patient to work directly with their primary care giver on the usage of herbs, for the treatment of disease.

If your primary care giver is unwilling to work with you, **then find another doctor.** The fact of the matter is, if you are already looking into herbal medicine you are probably not completely satisfied with what is now called "conventional medicine." If you are already dissatisfied, why not take this opportunity to find a doctor you will be comfortable with. Don't settle for less, your life and the life of those you love, is riding on your primary health care giver.

The other side of this coin is "*don't throw out the baby with the bath water.*" If you are suffering with severe chest pains and pain radiating down your left arm, who would you call? Certainly not a massage therapist or chiropractor. You would call your doctor. **The medical doctor is an essential and integral part of complete and comprehensive health care.** Just take the time to find one that is open-minded and willing to learn and work with you.

The following are suggestions on how to use herbal medicine in conjunction with conventional medicine. They are meant to be openly discussed with you primary care giver. If you have chosen your doctor wisely, he will be open to learning, and willing to help and work with you.

It is important to remember that herbals, unlike most prescription medications, **usually take longer to have an effect.** In many instances herbals are providing the precursors, or the constituents, with which your body will manufacture what is needed. In cases where a specific constituent of an herb is desired, the other properties of the herb are also important. They often allow a smaller dosage of the single constituent because of the synergistic effect of the other compounds in the herb.





# WHAT WOULD YOU DO WITHOUT MEDICINE?

Have you ever considered the ramifications of a total economic collapse? What if we were hit with an electromagnetic pulse (EMP) and the power grid went down for 9 months? **Would you survive?** Experts are telling us that Americans are just one disaster away from living like those in a third world country, where food, water and electricity are scarce and medical care is available only to the “privileged few.”

In the troubled days ahead, we might be forced to do without some of the luxuries we’ve come to enjoy. If things get really bad, we might not have cable TV, electricity on demand, high speed internet, cell phone coverage, or gasoline. But for most of us, living without all those things would **pale** in comparison to living without medical care and medicine.

Truth be told, even if you have a supply of medicine stored, those items do expire. In a crisis, you will **NOT** be able to count on conventional drugs (for diabetes, chronic pain, asthma, hypertension, etc) to be available. And remember that it won’t just be prescription drugs that are unavailable, but you will also not be able to obtain over-the-counter medications such as aspirin, Tylenol, Tums, and Pepto Bismol. What would you do if you were unable to obtain these items? **Think about it.** If there were an emergency in your family right now and you couldn’t get to a doctor, what would you do? Do you have the herbal medicines and the knowledge to use them when time is of the essence?

## The fact of the matter is that we should ALL prepare for shortages of ALL medicines and medical services!

For thousands of years, civilizations have flourished using herbal remedies to treat common ailments, diseases, and injuries. But today, Big Pharma has teamed up with Big Government to form a “Medical Mafia” with the intent of banning dozens of herbal medicines. Why? **GREED.** Since Big Pharma can’t patent herbs, they lobby Big Government to regulate them. As amazing as it may seem, patent protection applies only to toxic drugs and not natural medicines. Securing a government patent is **the key** to the money train.

The Medical Mafia has no interest in natural remedies that cannot be patented. **No claims of cure** are allowed for any unpatented mineral, vitamin, natural food medicine, herb, or phytonutrient, regardless of what it does, how many millions are benefited, or how many people claim they were cured. **Truth is not the issue.** Neither is fact, science, or efficacy. Information is controlled in “Gestapo” like fashion. Making unapproved medical claims (i.e. telling the truth about the medicinal properties of herbs) can result in imprisonment. I know it sounds like I’m talking about Red China or Russia or Nazi Germany, but I’m not. I’m talking about the “land of the free and the home of the brave.”



Some people love Big Pharma and some people despise it, but regardless of your feelings toward this conglomeration of multi-national pharmaceutical companies, the indisputable fact is that they rake in **BILLIONS** of dollars each year. This is all part of a real life game of “Big Pharma Monopoly.” The players in this game are huge; their profits are protected by the government; the American people are pawns.

**Here’s how the game is played:** Big Pharma manufactures toxic drugs (which they call “medicine”), and they send their salespersons (drug reps) out to propagandize the doctors (drug pushers) into believing that if they push these toxic drugs to their patients, then they are actually “practicing medicine.” The unwitting patients, believing that the “white coats” know everything there is to know about health, follow their doctor’s orders. This begins the cycle of “pharmaceutical roulette” where the patient pawns get stoned silly with barbiturates, benzodiazepines, amphetamines, opioids, stimulants, painkillers, palliatives, and various other symptom suppressors. Little known to the pawns in this game, all of the “medicines” they are taking are actually creating more and more long-term serious conditions, which

require more and more stronger and stronger “medicines,” which cause them to get sicker and sicker ... and the **real life** game of “Big Pharma Monopoly” keeps rolling along.

Now, here’s where it gets interesting. Big Pharma is not satisfied with the status quo. You see, under current law, it’s still acceptable for us to use herbal medicines in the USA. And yet, Big Pharma knows that these natural substances are powerful ... so powerful

in fact, that almost all prescription drugs today have their origin in plant extracts! But efforts are currently underway to ban dozens of traditional herbal remedies, leaving the unwitting American pawns dependent on Big Pharma’s toxic drugs.

Don’t waste another second. **Don’t play Big Pharma Monopoly!** Herbal medicines have stood the test of time and many of them grow right in your backyard. In an emergency, they may actually save your life. Medicinal herbs can supply us with everything we need to cure our ailments, treating everything from arthritis, to bacterial infections, to diarrhea, to depression. If you don’t know anything about medicinal herbs, don’t worry. That’s why we wrote this book. But you should make it a priority to learn all you can **ASAP**.



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### **Knowledge of medicinal herbs is vital! In the future, it may save your life!**

If you have not already planted a medicinal herb garden in your yard, plan to do it this spring. Most herbal plants are easy to care for, grow, dry, and use. And you will be able to completely break yourself from dependency on Big Pharma, which is a great feeling ... **not to mention an essential safeguard so that you aren’t eventually forced to play “Big Pharma Monopoly.”**









# MEDICINAL HERBS





# MEDICINAL HERBS

## AGRIMONY

*Agrimonia eupatoria*

**HABITAT & DESCRIPTION:** Agrimony can be found growing extensively throughout Europe, Canada, and the USA. A hardy perennial, its natural habitat is woods, fields, and marshes. It has one to two foot branchy stems covered with a fine, silky down and terminates in spikes of yellow flowers. Both the flowers and the notched leaves give off a faint characteristic lemony scent when crushed. It is harvested in summer.

**PARTS USED:** Stems and leaves.



**VITAMINS:** B<sub>3</sub>, K.

**TRADITIONAL USES:** Traditionally it's said to work primarily on the digestive tract. It has been used to treat gastritis, enteritis and mucous colitis. Its history includes several references to its usefulness as a diuretic and also for intestinal problems, jaundice, kidney stones, bladder disorders, external wounds, and for stopping diarrhea in children. It's been recommended to help reduce acidity and gastric ulcers, and works well as a stomach tonic that helps in the assimilation of food. Because it contains coumarins, apigenin, quercetin and thiamin, it has also been found helpful for many heart ailments. As in most herbs, the concentrations of the chemical constituents are small, but several phytochemicals working together is often much more effective than large doses of a single synthetic drug. Agrimony may be taken as a tincture or in capsule form.

**SELF-HELP USES:** Heart, Stomach, Liver.

**COMPONENTS:** Alpha-amyrin, Anthocyanins, Apigenins, Coumarins, Essential oils, Palmitic-acid, Quercetin, Tannins, Thiamin, Ursolic acid, Volatile oils.

## ALFALFA

*Medicago sativa*



**HABITAT & DESCRIPTION:** Alfalfa can be found in North America, the Mediterranean region, and western Asia. A perennial plant with a smooth, erect stem that grows 2 to 3 feet tall, it bears grayish-green pinnately trifoliate leaves, with egg-shaped leaflets; it looks much like a large clover. Its violet-purple flowers grow in racemes from June to August, producing spirally-coiled seed pods.

**PARTS USED:** Leaves, petals, flowers, sprouts.

**VITAMINS:** A, B complex, C, D, E, K and U.

**TRADITIONAL USES:** It is recommended for colon disorders because of its constituents that increase smooth muscle tonus of the digestive tract and decrease gastric secretions. Its mild sedative effect is important for ulcers as well as for gastric and colon disorders. Alfalfa is useful for keeping both blood sugar and insulin levels more constant (it contains insulin sparing constituents) making it helpful for diabetes. Alfalfa also has many antiinflammatories, antirheumatics and several analgesics to help alleviate numerous symptoms of arthritis and neuralgia. This herb is known as an excellent detoxifier, especially for the liver, and it's said that it stimulates the pituitary gland. Several of the phytochemicals may help to neutralize diverse types of cancer in the system; some have even been shown to prevent cancer development. For this reason, and for its overall nutritive abilities, it is invaluable for keeping up resistance and maintaining a healthy liver during times of heavy medication or anemia. Many herbalists consider it beneficial for all ailments because of its vitality and nutrient properties. It also contains anti-fungal agents which can be used to treat skin eruptions. Alfalfa tea is an ideal base with which to take any herbal tinctures you may choose. Alfalfa can be found in tincture, powder, capsule, tea, and tablet form.

**SELF-HELP USES:** Liver, Cancer, Stomach, Arthritis.

**COMPONENTS:** Adenosine, Amylase, Ascorbic acid, Biotin, Calcium, Choline, Chromium, Cycloartenol, Folicin, Formononetin, Inositol, Iron, Magnesium, Molybdenum, PABA, Phosphorus, Potassium, Quinic-acid,

Silicon, Sodium, Stachydrine, Stigmasterol, Sulfur, Tryptophan.

## ALOE

*Aloe barbadensis, Aloe vera*

**HABITAT & DESCRIPTION:** The name "aloe" derives from the Arabic "Alloeh" for "bitter, shiny substance". The Egyptians called it the "plant of immortality" and provided it as an offering in tombs of the pharaohs. Most aloe plants have fleshy greenish gray leaves with spiny edges and colorful flowers. Aloe grows wild in southern and eastern Africa and the shores of the Red Sea; it is cultivated in the West Indies, Italy, Malta, and Sicily. Aloe has been naturalized in Barbados and been found in the Zapata area of Texas.

**PARTS USED:** Juice and mucilage from the leaves.

**VITAMINS:** A, B complex, C, D, and E.

**TRADITIONAL USES:** Fresh mucilage is applied to the skin for burns, inflamed skin, and slow healing wounds. It's good for healing internal tissues damaged by radiation exposure, and works well on hemorrhoids, insect bites, poison ivy and oak, as well as psoriasis. It is a very strong purgative for constipation when used as the whole leaf. The Chinese use it as a laxative and a stimulant for the stomach. There are several liquid forms of Aloe products on the market, made to be taken internally. These may be found very helpful for upset stomachs, and for those who are taking strong medications for prolonged periods of time. It can be both soothing and regulatory for the digestive tract. Because of its many anti-cancer constituents, as well as for a few phytochemicals which may be beneficial to AIDS patients, liquid Aloe (taken internally) may be very helpful for the digestive tract and as a general healthy supplement. We have seen many patients more able to tolerate Essiac tea (often taken to complement other cancer treatments) when taking liquid Aloe at the same time.

**SELF-HELP USES:**

Stomach, Antiviral, AIDS, Cancer, Burns.

**COMPONENTS:**

Alanine, Aloe-emodin, Aloin A and B, Aloinside, Amylase, Anthraquinone, Arginine, Ascorbic acid, Aspartic-acid, Beta-carotene, Beta-sitosterol, Calcium, Catalase,



Chromium, Chrysophanic-acid, Chrysophanol, Cinnamic-acid, Cobalt, Coumarin, Emodin, Folacin, Formic acid, Fructose, Galactose, Glucosamine, Glucose, Glutamic-acid, Glycine, Histidine, Iron, Leucine, Lignin, Magnesium, Manganese, Mucilage, Niacin, Phenylalanine, Phosphorus, Potassium, Resin, Riboflavin, Saponins, Selenium, Serine, Silicon, Sodium, Thiamin, Tin, Zinc.

## AMARANTH

*Amaranthus hypochondriacus*

**HABITAT & DESCRIPTION:** Amaranth can be found growing in wasteland and agricultural land. Also known as "Prince's Feather," Amaranth is an Indian annual with deeply-veined, lance-shaped leaves, purple on the under side with deep crimson flowers, densely



packed on erect spikes.

**PARTS USED:** Leaves and flowers.

**VITAMINS:** C, high in iron and calcium.

**TRADITIONAL USES:** Traditionally its been used for treating gastroenteritis and stomach flu because it reduces the inflammation and irritability of the intestinal tract. It's also been used for diarrhea, dysentery, bleeding gums, excessive menstruation, nose bleeds, stomach and mouth ulcers. The existing phytochemicals indicate that it may be used as an excellent adjunct for treating not just the symptoms of stomach flu, but as an antiviral herb to treat the flu infection as well. It also contains many constituents that should aid in reducing the aches and pains of viral infections. Amaranth can be taken in capsule, tincture or tea form.

**SELF-HELP USES:** Stomach, Colds and Flu.

**COMPONENTS:** Alanine, Arginine, Ascorbic acid, Aspartic-acid, Beta-carotene, Calcium, Copper, Cystine, Fats, Folacin, Glutamic acid, Glycine, Histidine, Iron, Leucine, Magnesium, Manganese, Niacin, Phenylalanine, Phosphorus, Potassium, Protein, Riboflavin, Serine, Sodium, Thiamin, Tryptophan, Zinc.

## AMERICAN GINSENG

*Panax Quiquefolium; Araliaceae*

**HABITAT & DESCRIPTION:** The name "ginseng" is used to refer to both American and Asian or Korean ginseng ("Tienchi"). American ginseng grows in shady woodlands with rich soils. American ginseng has leaves that grow in a circle around a straight stem. Yellowish-green umbrella-shaped flowers grow in the center and produce red berries.

**PARTS USED:** Root.

**VITAMINS:** A, B<sub>6</sub>.



**TRADITIONAL USES:** Primarily used to enhance the immune system and to increase endurance, it's also used as a tonic and demulcent. American ginseng is good for the stomach, spleen, kidneys, and lungs. Recent tests have shown that a daily intake of Ginseng increases oxygen utilization in athletes which might, in part, account for its reputation as an excellent tonic. It normalizes blood pressure, stimulates the appetite and male sex glands (good for impotence) and enhances immune system function and lung function. It works well for stress, cocaine withdrawal, low energy, diabetes, radiation protection, and colds. American ginseng is recommended for men. Siberian ginseng is much more suitable for woman. Ginseng may be taken in tincture, tablet or capsule form.

**SELF-HELP USES:** Immune system enhancer, High blood pressure, Diabetes, Tonic, Cancer.

**COMPONENTS:** Adenosine, Alanine, Amylase, Arginine, Arsenic, Ascorbic acid, Asparagine, Aspartic-acid, Beta-carotene, Beta-sitosterol, Biotin, Calcium, Camphor, Caryophyllene, Choline, Chromium, Cinnamic-acid, Citric acid, Cobalt, Copper, Cystine, Essential oils, Ferulic-acid, Folacin, Formic acid, Galactose, Germacrene-D, Germanium, Ginsenoside-RB-2, Glucose, Glutamic-acid, Glycine, Histidine, Iodine, Iron, Isovaleric-acid, Kaempferol, Leucine, Linoleic acid, Magnesium, Malic acid, Manganese, Molybdenum, Niacin, Nicotinic acid, Nonacosane, Oleanolic-acid, Oleic acid, Palmitic acid, Pantothenic acid, Pectin, Phenylalanine, Phosphorus, Potassium, Quercetin, Riboflavin, Saponin, Selenium, Serine, Silicon, Sodium, Starch, Stigmasterol, Sucrose, Sulfur, Tannins, Tartaric acid, Thiamin, Tiglic acid, Tin, Triterpenic

saponoside, Vanillic acid, Zinc.

**CAUTION:** Avoid when there are digestive problems or watery diarrhea.

## ANGELICA

*Angelica archangelica; Umbelliferae*

**HABITAT & DESCRIPTION:** Angelica is a tall, stout very ornamental and aromatic plant with large white flowers, growing to a height of 4 to 6 feet or more. It is a biennial or short lived perennial herb native to Eastern North America. It is found in rich thickets, bottomlands, moist cool woodlands, stream banks and shady roadsides. It has a smooth, dark purple, hollow stem 1 to 2 inches round. The leaves are dark green, divided into three parts, each of which is again divided into three serrated leaflets, sometimes lobed.

**PARTS USED:** Dried root and seeds, fresh leaves and stems.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally used to reduce muscle spasms and tension, as well as to relieve gas, colic, and to increase urine production. It has also been used for catarrh, bronchitis, and liver function, indigestion, as a digestive aid, a tonic, and an expectorant. When using Angelica it induces sweating and stimulates blood circulation which is said to be good for colds, flu, pleurisy and various lung diseases. It is a strong emmenagogue that promotes menstruation at the same time relieving spasms of the stomach and intestines. For those suffering from difficult menstruation, the combinations of the plant chemicals becomes evident. It works as a diuretic to prevent bloating, while acting as an emmenagogue to induce menses (it reduces smooth muscle spasms in the stomach and intestines, preventing painful abdominal cramps). It works well for stomach ulcers, anorexia, and indigestion. The root oil prevents bacterial and fungal growth when applied externally. Fenchon, a phytochemical found in the plant, has been shown to help for some Alzheimer's patients. The strong diuretic action, as well as phytochemicals that cause vaso and arterial dilation, account for its ability as a hypotensive. It may be found in tea, tincture, capsules or powdered form.

**SELF-HELP USES:** Difficult menstruation, Spasms, Lung disease, Stomach, Hypertension,



Alzheimer's, Cancer.

**COMPONENTS:** Adenosine, Alpha-amyrin, Alpha-pinene, Angelic-acid, Angelicin, Archangelicin, Arsenic, Ascorbic acid, Bergapten, Beta Carotene, Beta-pinene, Beta-sitosterol, Biotin, Bisabolol-gelone, Borneol, Cadinene, Caffeic-acid, Calcium, Camphene, Carvacrol, Caryophyllene, Chlorogenic-acid, Choline, Chromium, Cobalt, Columbianadin, Copper, Cuparene, Ethanol, Fenchone, Flavonoids, Folacin, Fructose, Germacrene-D, Glucose, Imperatorin, Iron, Isoimperatorin, Ligustilide, Limonene, Linalool, Linoleic acid, Magnesium, Malic acid, Manganese, Myrcene, Myristic-acid, Nicotinamide, Nicotinic acid, Oleic acid, Osthole, Oxalic-acid, Oxypeucedanin, P-Cymene, Palmitic acid, Pantothenic acid, Phellopterin, Phosphorus, Pimpinellin, Potassium, Psoralen, Quinic-acid, Resins, Riboflavin, Safrole, Scopoletin, Selenium, Silicon, Sodium, Stigmasterol, Sucrose, Thiamin, Tin, Umbelliferone, Visnagin, Volatile oils, Xanthotoxol, Zinc.

**CAUTION:** Avoid if bleeding, and during pregnancy. Diabetics should be aware that it can increase sugar levels in the blood.

## ANISE

*Pimpinella anisum*

**HABITAT & DESCRIPTION:** Anise is a native of Egypt, Greece, Crete and Asia Minor and was cultivated by the ancient Egyptians. It was well known to the Greeks, being mentioned by Dioscorides and Pliny and was cultivated in Tuscany in Roman times. Anise is a dainty, white-flowered annual, about 18 inches high, with secondary feather-like leaflets of bright green.



**PARTS USED:** Oil, seeds and fruits.

**VITAMINS:** B.

**TRADITIONAL USES:** Anise is one of the best herbs for relieving colic and other abdominal distress. It is said to help remove excess mucus and prevent the possible formation of catarrh along the alimentary canal. Some herbalists say that it seems to be high in estrogen (which tends to stimulate all the glands) but this is probably due instead to the phytochemicals, hydroquinone and scopoletin. It's good for digestive problems,

loss of appetite, as found in anorexia and other "wasting diseases" and as a stimulant for vital organs such as heart, liver, lungs and brain. For asthma, bronchitis, emphysema and other lung disease sufferers it has been found helpful because of its expectorant qualities which help relieve bronchial spasms, dry excess mucous and aid in expelling the mucous. Anise may be taken in tincture, capsule or tea form.

**SELF-HELP USES:** Stomach, Lungs, Digestive tract.

**COMPONENTS:** Alpha-pinene, Anethole, Anisic-acid, Ascorbic acid, Bergapten, Beta-pinene, Caffeic-acid, Calcium, Camphene, Carvone, Chlorogenic-acid, Choline, Essential oil, Estragole, Fats, Furfural, Hydroquinone, Imperatorin, Limonene, Linalool, Magnesium, Manganese, Myristicin, Phellandrene, Phosphorus, Potassium, Protein, Rutin, Scopoletin, Sodium, Umbelliferone, Zinc.

## ASTHMA WEED

*Euphorbia hirta*

**HABITAT & DESCRIPTION:** Also known as "pokeweed," it is found in the northern United States and Canada. Asthma weed is an erect annual or biennial herb that gains a height of one to two feet and possesses stalked leaves. Its flowers are pale violet-blue in color.



**PARTS USED:** Whole herb.

**VITAMINS:** N/A

**TRADITIONAL USES:** Primarily used as an antiasthmatic, it also acts as an expectorant and helps to reduce bronchial spasms. It works well with pneumonia and bronchitis for opening airways and to keep mucous from building up. It also acts as a mild relaxant on the musculoskeletal system. In larger doses it is used to kill and expel stomach and intestinal worms. It is also effective in killing and removing several forms of amoebae. In China it has been used for

centuries to treat athletes foot, as well as other fungal and skin diseases. It is also used in Asia for amoebic and other forms of dysentery. Asthma weed is normally used in tincture or capsule form.

**SELF-HELP USES:** Asthma, Bronchitis, Worms, HIV and Pneumonia.

**COMPONENTS:** Alpha-amyrin, Ascorbic acid, Beta-sitosterol, Beta-sitosterol-D-glucoside, Betulin, Caffeic-acid, Choline, Cycloartenol, Daphnetin, Ellagic acid, Euphol, Fats, Ferulic-acid, Gallic acid, Inositol, Kaempferol, Linoleic acid, Oleic acid, Palmitic acid, Quercetin, Quercetin-3-galactoside, Resin, Tannic-acid.

## ASTRAGALUS

*Astragalus membranaceus*



**HABITAT & DESCRIPTION:** The grassy hills and the thickets along hillsides in areas such as the northwestern region of China, the province of Manchuria and the country of Mongolia are places where astragalus grows in the wild. Astragalus is a perennial plant (about two to three feet tall) and has hairy stems.

**PARTS USED:** Roots.

**VITAMINS:** N/A

**TRADITIONAL USES:** Long recognized as an excellent immune system enhancer, it is a wonderful herb to use when suffering from long term illnesses, or when the first sign of sickness occurs. It is helpful as a diuretic (especially effective in nephritis) aids in adrenal gland function, digestion, and increases metabolic rate to promote healing and to combat chronic fatigue. Its historical use and chemical constituents verify its effectiveness in treating chronic respiratory problems such as asthma, bronchitis and emphysema. Unlike many prescription

medications that are needed for long-term lung diseases, Astragalus acts as a general tonic and immune system booster. For those who take daily medication for these types of problems, it might be wise to talk with your doctor or pharmacist about using Astragalus as an adjunct to your current asthma medication. With supervision, see if you can reduce your prescription dosages. It is also used in the treatment of many heart ailments and some types of cancer. Again, as an adjunct to many treatment protocols, Astragalus might be a valuable supplement. It's also very respected as a liver rejuvenator. In clinical trials Astragalus has shown that it increases phagocytosis, interferon production, and interperitoneal macrophages and causes enhancement of T-cell formation. Astragalus is taken in capsule, tincture or powder form.

**SELF-HELP USES:** Lungs, Heart, Liver and Immunity.

**COMPONENTS:** Acetic acid, Betaine, Beta-sitosterol, Calcium: Choline, Copper, Formononetin, Glucuronic acid, Iron, Linoleic acid, Linolenic acid, Magnesium, Manganese, Potassium, Sodium, Starch, Sucrose, Zinc.

## BARBERRY

*Berberis vulgaris; Berberidaceae*



**HABITAT & DESCRIPTION:** Barberry is native to Europe and Asia, and can be found growing wild from Canada to Pennsylvania. When left to grow wild it can grow as tall as seven to ten feet high. Barberry prefers areas of full sunlight with some partial shade. The shrub itself has gray, thorny branches with bright yellow flowers that bloom between April and June. The flowers turn into drooping, dark red berries in the fall.

**PARTS USED:** Berries, fruits, roots and bark.

**VITAMINS:** B complex and C.

**TRADITIONAL USES:** Taken internally it has been traditionally used to decrease heart rate, slow respiratory rate, stimulate intestinal

movement, and reduce bronchial spasm. Topically it is used as an antibacterial and astringent. Internally its detoxifying action helps heal acne, boils, conjunctivitis and reduce fevers. It is considered one of the mildest and best liver tonics known, making it especially useful for jaundice, hepatitis, enlargement of the liver and spleen. Many herbalists consider it milder and safer to use than other herbs in this category, such as Goldenseal or Gentian, because it seems to respond to the need for either a heating or cooling action on the body's temperature, when needed. It has several phytochemicals that have shown it to be helpful for some types of cancers, as well as various constituents beneficial to the heart and for cardiovascular disease. Barberry may be taken in tincture, tea or capsule form.

**SELF-HELP USES:** Lung, Liver, Heart and Cancer.

**COMPONENTS:** Ascorbic acid, Berbamine, Berberine, Beta-carotene, Calcium, Caffeic-acid, Chromium, Citric acid, Cobalt, Columbamine, Fats, Fructose, Glucose, Hydrastine, Iron, Magnesium, Malic acid, Manganese, Niacin, Plant sterols, Phosphorus, Polyunsaturated fatty acid, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sinapic-acid, Sodium, Tannin, Tartaric acid, Thiamin, Tin, Wax, Zinc.

**CAUTION:** It should not be used during pregnancy because it stimulates the uterus. In mild doses the bark works as a laxative, diuretic and choleric; in larger doses it causes stupor, vomiting, diarrhea and even respiratory failure.

## BAYBERRY

*Myrica cerifera; Myricaceae*

**HABITAT & DESCRIPTION:** The coastal regions of eastern and southern USA are the main habitats of the bayberry. But it can sometimes be found as far west as Texas. The bayberry bush grows between three and eight feet and its fruit are small groups of globular berries, having numerous black grains crusted with greenish-white wax. The leaves are very fragrant when rubbed.



**PARTS USED:** Bark of the root.

**VITAMINS:** High amounts of vitamin C.

**TRADITIONAL USES:** Traditionally used as a powerful stimulant that has a warming affect on the body and its energy, as well as for an excellent immune system enhancer, especially in the first stages of illness. The stimulant action

promotes healing and toning of inflamed tissues. It is said to clear mucus, dispel colds, flu and coughs. Its astringent action stops persistent diarrhea, and reduces bowel inflammation. In India it is combined with Ginger to effectively treat cholera. It is used to stop excessive menstrual bleeding, uterine prolapse and uterine and vaginal discharges. It makes an excellent tooth powder and astringent for cleansing receding and bleeding gums. For this, it works well with powders of cinnamon, myrrh, echinacea and salt. A fomentation made from the tea can be applied nightly which is said to relieve and prevent varicose veins. The powdered bark can be made into a paste or poultice to help old wounds, ulcers and sores that are difficult to heal. It may be used in tincture, tea or capsule form.

**SELF-HELP USES:** Wounds, Diarrhea, Immunity, Digestive tract.

**COMPONENTS:** Alpha-pinene, Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Fats, Flavonoids, Gallic acid, Gum, Iron, Limonene, Linalool, Myrcene, Magnesium, Manganese, Niacin, Phenol, Phosphorus, Potassium, Protein, Resins, Riboflavin, Selenium, Silicon, Sodium, Starch, Tannic-acid, Tannins, Thiamin, Triterpenes, Tin, Zinc.

**CAUTION:** In large doses it is emetic.

## BLACKBERRY

*Rubus villosus; Rosaceae*

**HABITAT & DESCRIPTION:** Blackberry is cultivated in the USA and grows in dry or sandy soil. The plant bears slender branches possessing sharp and recurved prickles. Its leaves are hairy bearing three to five leaflets. Its ripe berries are red or black.

**PARTS USED:** Leaves, root bark, fruit.

**VITAMINS:** A and C.



**TRADITIONAL USES:** Traditional uses for Blackberry have been primarily for diarrhea, dysentery, excessive menstrual bleeding and anemia. This is perhaps one of the best remedies for diarrhea and dysentery; it's said to be gentle enough for babies. The berries and juice build blood, aid anemia, reduce fevers and regulate menses. The Chinese use blackberries to aid vitality, virility, promote fertility, hair growth,



improve complexions, cure fevers and colds. Blackberry may be used as a tea, capsule, tincture or juice.

**SELF-HELP USES:** Stomach, Diarrhea, Menstruation

**COMPONENTS:** Ascorbic acid, Caprylic-acid, Citric acid, Chromium, Cyanin, Ethanol, Furfural, Malic acids, Pectin, Phenol, Phosphorus, Potassium, Silicon, Valerianic acid, Tannins.

**CAUTION:** Taken in excess the berries and juice cause loose stools. The leaves and roots firm-up loose stools.

## BLACK COHOSH

*Cimicifuga racemosa;*  
*Ranunculaceae*

**HABITAT & DESCRIPTION:** Black cohosh is a tall perennial plant in the buttercup family that grows in eastern and central areas of the USA. Black cohosh was introduced to American medicine by native Indians, who called it "squaw root" in reference to its common use: treatment of uterine disorders. It grows between three and nine feet tall.



**PARTS USED:** Rhizomes and roots.

**VITAMINS:** A and B<sub>5</sub>

**TRADITIONAL USES:** Traditionally used to relieve symptoms of asthma, bronchitis, sinusitis and whooping cough, it's also useful as an antispasmodic for hysteria, nervous conditions, neuralgia, cramps and pain. For chronic asthmatics, and others with chronic coughing, it has been shown to effectively reduce mucous levels in the lungs and bronchial tubes. It has traditionally been used to facilitate childbirth, especially when combined with raspberry and squaw vine and taken daily for the last two weeks of pregnancy. This is a Native American herbal method of toning the uterus and preparing it for childbirth at the same time it supplies hormonal, vitamin, and mineral supplementation for the childbirth process. It's also been used to relieve

morning sickness, hot flashes and menstrual cramps. For the heart and vascular system it is effective in lowering blood cholesterol as well as lowering blood pressure. It also has active constituents to aid in the removal of plaque from the arterial wall. It may be taken as a tincture, capsule or powder.

**SELF-HELP USES:** Lungs, Spasms, Pain, Hypertension, Heart, Menses and Stomach

**COMPONENTS:** Acetic-acid, Actaeine, Ascorbic acid, Beta-carotene, Butyric acid, Caffeic-acid, Calcium, Chromium, Cimicifungin, Cobalt, Estrogenic substances, Fats, Formononetin, Iron, Isoferulic acid, Magnesium, Manganese, Niacin, Oleic acid, Palmitic acid, Phosphorus, Potassium, Riboflavin, Selenium, Silicon, Tannic-acid, Tannins, Thiamin, Tin, Triterpenes, Zinc

**CAUTION:** It is not recommended during pregnancy, unless under the supervision of a physician, because of its ability to bring on labor. Too large a dose will cause nausea, dizziness and dimness of vision.

## BLACK PEPPER

*Piper nigrum; Piperaceae*

**HABITAT & DESCRIPTION:** Black pepper grows in southern India, China, and the East and West Indies. Pepper is mentioned by Roman writers in the fifth century. It is said that Attila demanded among other items 3,000 pounds of black pepper in ransom for the city of Rome. Black pepper is a very hearty perennial and thrives in a humid climate. It will climb fifteen feet or more.



**PARTS USED:** Fruit.

**VITAMINS:** N/A

**TRADITIONAL USES:** Although predominantly used as a spice, black pepper is an important metabolic stimulant and expectorant. It is one of the best herbal foods for indigestion, gas, weak or slow peristalsis in the digestive tract, bloating and mucus in the colon. It also acts as an expectorant in the lungs, throat and sinuses, clearing out colds, coughs and other mucus conditions. Over the centuries it has been used as an adjunct for the treatment of diseases involving the kidneys, liver, spleen, stomach, and as an aid for increasing the body's temperature to

help in fighting colds and flu. Black pepper is usually taken as a spice, but may be found and taken in capsule form as well.

**SELF-HELP USES:** Lung, Stomach, Liver.

**COMPONENTS:** Amide, Acrid resins, Ascorbic acid, Carvacrol, Carvone, Chromium, Cinnamic-acid, Essential oil (that contains phellandrene), Iodine, Myristicin, Nickel, Oxalic-acid, Phosphorus, Potassium, and Saffrole.

**CAUTION:** It has been said that prolonged use of black pepper may reduce tendon flexibility.

## BLACK WALNUT

*Juglans nigra*



**HABITAT & DESCRIPTION:** The black walnut is a tall forest tree, which can reach up to 120 feet in height. It grows primarily in the Eastern USA in rich woods and limestone soils.

**PARTS USED:** Husks, inner bark, leaves and nuts.

**VITAMINS:** N/A

**TRADITIONAL USES:** The Native Americans have traditionally used Black Walnut as a main ingredient to their worming combinations. Unlike most Americans, Native Americans felt that if their meat sources often had worms, as well as their horses and pets, that they were as vulnerable as any other animal to parasite infestation. For this reason, worming preparations were taken several times yearly. For most worming combinations, Black Walnut, Wormwood, Cloves and Garlic were used in some form. Black Walnut has also been used as an aid in the treatment of tuberculosis, diarrhea, menstrual disorders, digestive disorders and sore throat. When used as a mouthwash, it promotes healing of sores in the mouth and throat. Black walnut is usually taken in tincture or capsule form.

**SELF-HELP USES:** Parasites (worms) Stomach and Diarrhea.

**COMPONENTS:** Ascorbic acid, Chromium, Ellagic acid, Iodine, Juglone, Molybdenum, Niacin, Nickel, Phosphorus, Potassium, Sakuranetin, Silicon, Tin.

## BLESSED THISTLE

*Cnicus benedictus*

**HABITAT & DESCRIPTION:** Blessed thistle is an annual plant native to southern Europe and western Asia, cultivated elsewhere



and occasionally found wild in North America. The branched stem of blessed thistle is approximately two feet in height and produces oblong, spiny leaves; both stem and leaves are hairy. The flowers bloom from May to August.

**PARTS USED:** The herb; various parts.

**VITAMINS:** B-complex.

**TRADITIONAL USES:** Traditionally used as a digestive and general tonic, it increases hunger, stomach secretions, and peristalsis of the intestinal tract. Another primary use has been in the treatment of painful menses and menopause. It contains many phytochemicals which help regulate the female hormonal levels, as well as chemicals which are helpful in reducing spasms and pain. For lactating mothers, it is also used to increase lactation. It is said to rejuvenate the liver and aid in recovery from many liver diseases. It also aids circulation, cleanses the blood, strengthens the heart, alleviates inflammation of lung tissue (pneumonitis) and it acts as a brain food by increasing cerebral circulation. Blessed thistle is usually taken as a tincture or tea, but may be found in capsule form.

**SELF-HELP USES:** Cancer, Liver, Stomach, Lungs.

**COMPONENTS:** Alpha-amyrin, Ascorbic acid, Beta-carotene, Beta-sitosterol, Calcium, Chromium, Cobalt, Fats, Fenchone, Ferulic-acid, Iron, Lithospermic-acid, Luteolin, Magnesium, Manganese, Mucilage, Niacin, Nonacosane, Oleanolic-acid, P-Cymene, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Stigmasterol, Tannins, Thiamin, Tin, Zinc, Volatile oils.

**CAUTION:** Avoid toxic skin effects by handling carefully.

## BLUE COHOSH

*Caulophyllum thalictroides;*  
*Berberidaceae*



**HABITAT & DESCRIPTION:** Blue cohosh grows in Canada, the USA, and eastern Asia; it flourishes near running streams, around swamps, and in other moist places. It is a perennial plant with a round stem which grows from one to three feet in height. Its blue, spherical fruits, which are naked seeds, grow on fleshy stalks; they ripen in August. The seeds are poisonous.

**PARTS USED:** Roots.

**VITAMINS:** B<sub>3</sub>, B<sub>5</sub>, B<sub>9</sub>, and E.

**TRADITIONAL USES:** Native Americans have long used it to ease the pain and decrease the duration of childbirth as well as increasing the uterine muscle tone. It was also used to stimulate menstruation, reduce menstrual cramps and decrease the pain associated with pelvic inflammatory disease or fibroid cysts. It was valued as a uterine tonic to prepare for child birth, and as a uterine stimulant during childbirth. As an anti-inflammatory it reduces pain from leukorrhea, vaginitis, colic and rheumatism. It has several chemical constituents that combat involuntary muscle contractions and act as a mild muscle relaxer. This is effective in reducing pain from muscle tension and spasms in the back, neck and shoulders, as well as relieving cramping and many nervous ailments. Blue cohosh is usually used in conjunction with other herbs such as Black cohosh to enhance its affects. It has insulin sparing qualities, as well as antidiabetic phytochemicals, that have made it a useful herb for diabetics. This herb is generally taken as a tincture, but may be used in tea or capsule form.

**SELF-HELP USES:** Menses, Childbirth, Menopause, Muscle spasms, Arthritis

**COMPONENTS:** Anagryne, Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Fats, Gum, Inositol, Iron, Magnesium, Manganese, Methylcystine, Niacin, Phosphorus, Potassium, Protein, Resin, Riboflavin, Saponins, Selenium, Silicon, Sodium, Starch, Thiamin, Tin, Zinc.

**CAUTION:** It has been found to raise blood

pressure in some people. For this reason, it should not be used by people suffering from hypertension. Avoid during pregnancy. Use under supervision only after labor has actually started.

## BLUE VERVAIN

*Verbena hastata*

**HABITAT & DESCRIPTION:** Blue vervain is a perennial that grows to 4 feet in height. Its leaves are serrated, and it produces blue or blue-violet flowers on numerous narrow terminal spikes. It grows primarily in damp thickets, shores, moist fields, meadows, and waste areas.

**PARTS USED:** Roots, leaves and stems.

**VITAMINS:** Contains vitamin C and some E.



**TRADITIONAL USES:** Traditionally it has been used as a natural and mild tranquilizer. It has the ability to settle the stomach, promote sweating and muscular relaxation, giving a feeling of general well-being. Though not strictly a female herb it was regularly used for cramps, neuralgia, and headaches preceding menses. It is also known for relieving the symptoms of cystitis, and is used for the treatment of colds, flu, fevers, pneumonia, and asthma, because of its properties as an expectorant, anti-inflammatory and antiasthmatic. It helps expel phlegm from the throat and chest. It is often used as a mild nerve for the treatment of epilepsy, delirium and headaches. It's a very gentle and relaxing herb with many additional benefits (other than its anti-inflammatory abilities) when treating these other conditions. Blue Vervain is also found as a primary constituent in several de-worming herbal recipes. Blue vervain may be taken as a tincture, tea or capsule.



**SELF-HELP USES:** Menses, Lungs, Stomach, Bowel, Anti-inflammatory.  
**COMPONENTS:** Adenosine, Artemetin, Aucubin, Beta-carotene, Caffeic-acid, Calcium, Essential oil, Furfural, Lupeol, Manganese, Mucilage, Tannin, Ursolic acid, Verbenalin, Verbenin.

## BUCHU

*Barosma betulina*



**HABITAT & DESCRIPTION:** Buchu is widely cultivated in South Africa, where it also grows wild in mountainous regions. It is a small shrub growing between two and three feet in height. The flowers are white.

**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Used traditionally with great effect on genito-urinary tract infections and inflammations of the kidneys, bladder and urethra. Buchu is one of the best herbs for the urinary tract and may be combined with Saw Palmetto berries and Uva Ursi for even greater results. It is used for treating inflammation of mucous membranes, sinuses, ulcers, prostate, colon, and vagina. It relieves gas, and bloating from gastric distress. Buchu has also been used to help control diabetes because of its ability to inhibit the onset of hypoglycemia, and it acts as a rejuvenator to the pancreas. As a mouth wash it is great for sore and bleeding gums. Taken internally it is an excellent diuretic. It may be found in tea, capsule or tincture.

**SELF-HELP USES:** Diabetes, Urinary tract, Digestive tract, Diuretic.

**COMPONENTS:** Alpha-pinene, Ascorbic acid, Barosma camphor, Calcium, Camphene, Chromium, Cobalt, Diosmin, Hesperidin, Iron, Lignin, Magnesium, Manganese, Mucilage, Myrcene, Niacin, Phosphorus, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin, Volatile and Essential oils, Zinc.

## BUCKTHORN

*Rhamnus cathartica* or  
*Rhamnus frangula*

**HABITAT & DESCRIPTION:** Buckthorn is a woody shrub or small tree that grows up to twenty feet in height. "Glossy" buckthorn typically invades wetlands including swamps, bogs, fens and wet meadows but also occurs in upland habitats such as woodland edges, old fields and roadsides. "Common" buckthorn is primarily an invader of upland sites including open woods, woodland edges, prairies and open fields. Both species are capable of growing in full sun as well as heavily shaded areas.

**PARTS USED:** Bark and berries.

**VITAMINS:** C.



**TRADITIONAL USES:** A very strong purgative. It will quickly relieve constipation, but may do so dramatically. It contains compounds that research has shown has tumor reducing properties. If taken hot, it will produce perspiration and lower fevers. Applied externally, the ointment made from the herb helps provide relief from itching and it works as well as a disinfectant. Taken internally it is used as a dewormer and to treat chronic constipation, gallstones, hemorrhoids, and liver problems. The dosage must be watched carefully to avoid unpleasant abdominal cramps from the laxative action of this herb. It is also not recommended to use this herb for prolonged periods of time. Buckthorn is usually taken as a tea or tincture.

**SELF-HELP USES:** Laxative, Worms.

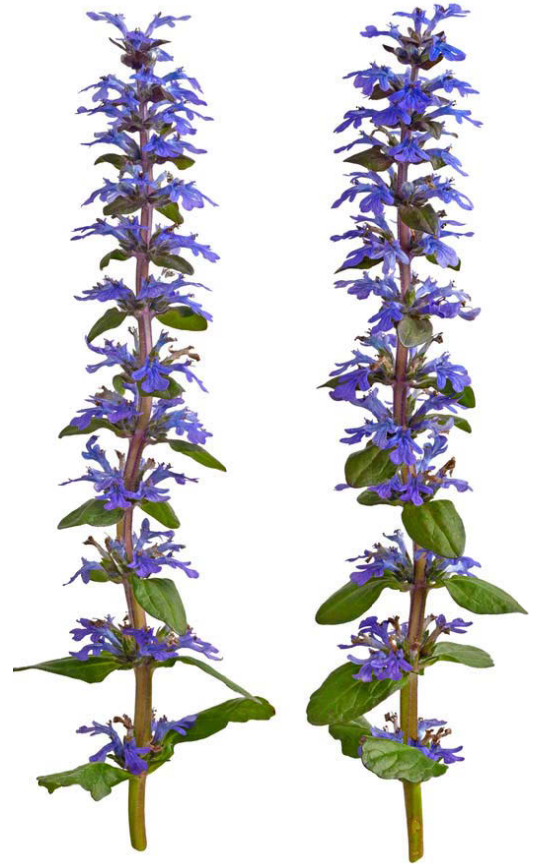
**COMPONENTS:** Aloe-emodin, Aloin, Anthraquinone, Ascorbic acid, Beta Carotene, Calcium, Chromium, Chrysophanic-acid, Chrysophanol, Cobalt, Fats, Iron, Linoleic acid, Magnesium, Malic acid, Manganese, Niacin, Pectin, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Tannic acid, Thiamin, Tin, Zinc.

**CAUTION:** Because strong doses irritate the gastrointestinal mucosa (to the point of bleeding) and can cause vomiting and severe diarrhea, Buckthorn fruits must always be taken with great care. Fresh bark should never be used. The fruits and the fresh bark are poisonous.

## BUGLEWEED

*Lycopus virginicus*

**HABITAT & DESCRIPTION:** Bugleweed is an herb endemic to Europe and Asia, and introduced in the USA. In the wild, it proliferates in marshlands and wetlands. It is a perennial plant belonging to the mint family, with elongated leaves that are initially purple and then turn green as they unfold.



**PARTS USED:** The herb.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditional use has been as a sedative, as well as for heart problems. For the heart it exhibits actions similar to digitalis, such as slowing the heart rate and reducing the chance of pulmonary hemorrhage. It contains coumarin which reduces the chances of unwanted clotting in the circulatory system. It is also used in the treatment of gastro-intestinal problems, uncontrolled bleeding, diarrhea, colds and fevers. It is known as one of the mildest and safest narcotics in the world. Having said that, it must be remembered that bugleweed should not be used for long periods of time, nor without the guidance of a health care professional. It may be taken in tea or as a tincture.

**SELF-HELP USES:** Heart, Sedative, Gastro-intestinal tract.

**COMPONENTS:** Alpha-pinene, Ascorbic acid, Beta-pinene, Caffeic-acid, Camphene, Caryophyllene, Chlorogenic-acid, 1,8-Cineole, Coumarin, Ellagic acid, Gallic acid, Germacrene-D, Limonene, Linalool, Lithospermic-acid, Lycopene, Myrcene, Pulegone, Sinapic-acid, Tannic-acid, Tannins, Trans-Beta-Farnesene.

## BURDOCK ROOT

*Arctium lappa*

**HABITAT & DESCRIPTION:** Burdock root grows in hedges and ditches in Europe, parts of Asia, and North America. It is cultivated in Japan. A biennial, it grows to more than three feet. The roots are dug in July and are fleshy, wrinkled, crowned with a tuft of whitish, soft, hairy leaf-stalks. Burdock root has a sweetish and mucilaginous taste.

**PARTS USED:** Roots and seeds.

**VITAMINS:** B<sub>1</sub>, B<sub>6</sub>, B<sub>12</sub>, E, C, A, P, B-complex, iron and zinc.



**TRADITIONAL USES:** Traditionally it's been applied externally as an antiseptic to treat cuts and sores and to reduce the size and inflammation of hemorrhoids. In Europe it is commonly used as a treatment for prolapsed and displaced uterus. When taken internally it is an excellent blood purifier, it promotes kidney function, stimulates the pituitary gland, revives liver and gallbladder function, stimulates the immune system, and is said to alleviate symptoms of gout. It is a mild sedative, a diuretic and a laxative, and also an appetite stimulant. Burdock root may be taken as a tincture, capsule or tea.

**SELF-HELP USES:** Stomach, Pituitary, Diuretic, Antispasmodic, Immunostimulant, Uterus, Laxative.

**COMPONENTS:** Alanine, Acetic-acid, Arginine, Ascorbic acid, Aspartic-acid, Beta-carotene, Caffeic-acid, Calcium, Chlorogenic-acid, Chromium, Cobalt, Copper, Cystine, Fats, Glutamic-acid, Glycine, Histidine, Inulin, Iodine, Iron, Isovaleric-acid, Leucine, Magnesium, Manganese, Myristic-acid, Niacin, PABA, Palmitic-acid, Phenylalanine, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Serine,

Silicon, Sodium, Stigmasterol, Sulfur, Tannins, Thiamin, Tin, Tryptophan, Volatile oils, Zinc.

**CAUTION:** It interferes with iron absorption when taken internally. Keep this in mind if you are using this for any prolonged period of time.

## BUTCHER'S BROOM

*Ruscus aculeatus*

**HABITAT & DESCRIPTION:** Butcher's Broom is a small evergreen shrub which grows throughout Asia, Europe, and North America. It prefers shade and can tolerate a variety of soil types and is most common in hedgerows and woodlands. Butcher's Broom propagates in the wild by seed. Birds eat the fruit and excrete the seed, allowing Butcher's Broom to distribute itself over a wide area.

**PARTS USED:** Tops, seeds, and rhizomes.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally this herb has been used to treat vascular problems including leg cramps, varicose veins, hemorrhoids, phlebitis, thrombosis, jaundice, as well as kidney and bladder dysfunction. This herb is also used effectively to improve or stimulate peripheral circulation to the limbs as well as the brain. Butcher's broom is an excellent choice for maximizing the effects of Ginkgo, for cerebral circulation. It has a diuretic effect which tends to lower blood pressure and it also acts to prevent atherosclerosis and to lower blood cholesterol levels. Butcher's broom is taken as a tincture, capsule, tea or powder.

**SELF-HELP USES:** Circulatory system, Diuretic, High blood cholesterol.

**COMPONENTS:** Ascorbic acid, Alkaloids, Beta Carotene, Calcium, Chromium, Chrysophanic acid, Cobalt, Fats, Hydroxy-tyramine, Iron, Magnesium, Manganese,



## CALENDULA

*Calendula officinalis*

**HABITAT & DESCRIPTION:** Calendula is indigenous to the southern European region. It is also cultivated in many temperate regions of the world for use in many processes and is naturalized in North America and Asia. The plant blooms the first of every month and bears flowers in bright yellow, red and orange colors.

**PARTS USED:** Flowerheads and leaves.

**VITAMINS:** N/A



**TRADITIONAL USES:** Oftentimes known as marigold, it is one of the most widely used herbal remedies today. It has been traditionally used as an anti-inflammatory, antiseptic, antifungal, vulnerary, astringent, diaphoretic, antispasmodic and stimulant. It contains several antiviral, antibacterial, and cancer fighting phytochemicals making it exceptionally valuable at fighting diseases and enhancing the immune system to prevent disease. It is recommended for the treatment of cancer, HIV, AIDS and any other autoimmune disease. It not only fights current infections, but is able to inhibit new infections. It is taken internally for inflammation of the lymph nodes, damaged or ulcerated stomach lining, and as an anti-inflammatory for joint or muscular aches and pain. It is used as a gargle for sore throats, mouth ulcers, and oral thrush. It is also used externally to apply to leg ulcers, hemorrhoids, eczema, and even as an eye wash for conjunctivitis. Calendula is taken as a tincture, tea or in capsule form.

**SELF-HELP USES:** Cancer, Inflammation, Viral and Bacterial infections, HIV.

**COMPONENTS:** Alpha-amyrin, Ascorbic acid, Beta-sitosterol, Caffeic-acid, Carotenoids, Caryophyllene, Chlorogenic-acid, Galactose, Inulin, Kaempferol, Linoleic acid, Lycopene, Malic acid, Mucilage, Myristic-acid, Oleanolic-acid, Oleic-acid, Palmitic-acid, Quercetin, Resin, Rutin, Saponins, Stigmasterol, Triterpenes, Vanillic-acid, Volatile oil.



## CANNABIS SATIVA

*Cannabaceae, Marijuana*

**HABITAT & DESCRIPTION:** Cannabis grows naturally in Persia, Northern India, Southern Siberia, and China. It is largely cultivated in Central and Southern Russia. The plant is an annual, the erect stems growing from three to ten feet or more very slightly branched, having greyish-green hairs.

**PARTS USED:** Leaf, resin, seeds

**VITAMINS:** N/A

**TRADITIONAL USES:** As an herbal remedy, Cannabis dates back over 5000 years. It was traditionally used to reduce muscle tension and spasms, relieve pain, and as a cerebral sedative. It was commonly used for neuralgia, spasmodic cough, migraine headaches, glaucoma, nausea, loss of appetite and as an aid in childbirth. It was frequently used to treat asthma because of its ability to reduce bronchial spasm and act as an expectorant. Chinese medicine uses the seeds as a tonic, laxative, and emollient. The Chinese also use the buds and leaves internally, for the same illnesses as Western and Native American medicine. More modern medicine has found it to be useful for the relief of nausea and vomiting in cancer patients undergoing chemotherapy, and as an antispasmodic for the severe spastic episodes found in multiple-sclerosis and epilepsy. For AIDS patients, as well as anorexia, it may be used as an appetite stimulant. According to D.E.A. Judge Francis L. Young, in a 1992 hearing, it is considered one of the safest herbs. Not a single death has been attributed to its use. However, it is still illegal in the United States and may not be legally used by anyone, including doctors. Cannabis may be taken in powder, tea, tincture, or smoked.



**SELF-HELP USES:** Pain, Nausea, Migraine, Glaucoma, AIDs, Cancer.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Calcium, Delta-9-tetrahydrocannabinol, Fats, Flavonoids, Histidine, Iron, Linoleic acid, Linolenic acid, Niacin, Oleic-acid, Orientin, Phosphorus, Protein, Riboflavin, Thiamin, Tryptophan, Volatile oils.

**CAUTION:** Though it is proven that the drug is not physically addictive, it may be psychologically addictive. It should also be noted that in young

people it may prove to be very amotivational. It is illegal to possess or use Cannabis in the United States.

## CARDAMOM

*Elettaria cardamomum*

**HABITAT & DESCRIPTION:** Cardamom belongs to the same family as ginger and turmeric. The cardamom plant is native to India and Sri Lanka and is also cultivated in Guatemala, Mexico, Indonesia and other areas of southern Asia.

**PARTS USED:** Seeds.



**VITAMINS:** N/A

**TRADITIONAL USES:** It has been given for flatulence, indigestion and to stimulate the appetite for people with anorexia, or for problems with nausea often associated with other wasting diseases. It aids in digestion, eliminates gas, diarrhea, colic, and stops vomiting. Traditional Chinese medicine use Cardamom for urinary incontinence and infections as well as a tonic. Cardamom is also used for coughs, colds, bronchitis, asthma and emphysema. It acts as an expectorant and counteracts mucous congestion, as well as relaxing bronchial spasms. This herb is also very valuable as an anti-inflammatory. In many cases, Cardamom can be used to replace Cayenne for chronic pain, if Cayenne is too difficult to tolerate. It may also be used safely with almost any other herb to aid in chronic or acute pain relief. This herb may be taken safely for prolonged periods of time and should be seriously considered for chronic arthritis or neuralgia type inflammatory illnesses. Cardamom is used as a spice, and can be taken as a tincture, tea, capsule, or in powder form.

**SELF-HELP USES:** Inflammation, Colic, Lungs.

**COMPONENTS:** Alpha-pinene, Beta-pinene, Borneol, Calcium, Chromium, 1,8-Cineole, Cobalt, Essential oil, Fats, Geraniol, Iron, Limonene, Linoleic acid, Myrcene, Nonacosane, Niacin, Oleic acid, Palmitic acid, P-Cymene, Phosphorus, Phytol, Potassium, Protein, Riboflavin, Sodium, Starch, Stigmasterol, Sugar, Terpeneol, Thiamin, Volatile oil.

## CASCARA SAGRADA

*Rhamnus purshiana*



**HABITAT & DESCRIPTION:** Cascara sagrada is a small deciduous tree growing up to twenty feet in height and found in Europe, western Asia, and in North America (from northern Idaho to the Pacific coast mountainous areas). The tree eventually produces short-stemmed clusters of small, greenish-white flowers with black, pea-sized drupes that are poisonous.

**PARTS USED:** Bark.

**VITAMINS:** Vitamin B complex, B<sub>2</sub> and B<sub>6</sub>.

**TRADITIONAL USES:** Native Americans have used Cascara sagrada as a natural laxative for hundreds of years. It has the advantage of not promoting dependency like most laxatives and is believed to tone and strengthen the bowels as well. As a laxative, this herb is considered one of the safest, even being suitable for the elderly and children. This plant has also been used to rejuvenate and cleanse the liver by breaking down and eliminating fat and toxins. It is also used to eliminate gallstones. Cascara is also used to treat parasitic infestations and diverticulosis. Some have found it helpful in the treatment of leukemia and it has proven very effective in enhancing the immune system against both viral and bacterial infections. Cascara sagrada may be taken as a tincture, tea, capsule or powder.

**SELF-HELP USES:** Laxative, Liver, G.I. Tract, Parasites, Leukemia, Immunity.

**COMPONENTS:** Aloe-emodin, Aloins, Aluminum, Anthraquinone, Ascorbic acid, Beta-carotene, Calcium, Cascarosides, Chromium, Chrysophanol, Chrysophanic-acid, Cobalt, Emodin, Essential oils, Fats, Iron, Inositol, Magnesium, Manganese, Niacin, PABA, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Tannic-acid, Thiamin, Tin, Zinc.

**CAUTION:** For those with sensitive bowels, it should be combined with a little ginger, anise or fennel seed to prevent cramping.

## CATNIP

*Nepeta cataria*

**HABITAT & DESCRIPTION:** Catnip is a perennial herb found growing wild throughout North America and Europe where it is thought to have originated. It is easily cultivated in any garden soil. Catnip has square, erect and branched stems and grows two to three feet high. The leaves are heart-shaped and toothed. Catnip blooms from June to September. The entire plant has a minty fragrance.

**PARTS USED:** Leaves.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>, B<sub>12</sub>, C.



**TRADITIONAL USES:** Often called Catmint, it is a member of the mint family and acts much the same as peppermint. This herb has been used primarily for its calming and sedative properties. While these properties are of first import with this plant, when combined with its ability to stimulate the appetite and calm the stomach and intestinal tract, its potential becomes even greater. For "wasting" type diseases this herb may be of great benefit in both stimulating appetite and in avoiding nausea. It is a soothing carminative to the gastrointestinal tract, and a mild tonic. It helps in digestion, relieving stress, and is a good sleeping aid. Catnip enemas have been used to quickly reduce fevers. It is also used for colic, colds, flu, inflammation, pain and convulsions. Catnip may be used as an enema, or taken as a tincture, tea or in powdered capsule form.

**SELF-HELP USES:** Sedative, Stomach, Inflammation, Appetite stimulant.

**COMPONENTS:** Calcium, Camphor, Carvacrol, Caryophyllene, Chromium, Citral, Cobalt, Geraniol, Iron, Magnesium, Manganese, Myrcene, Nepetalic acid, Phosphorus, Potassium, Protein, Pulegone, Selenium, Silicon, Sodium, Sulfur, Thymol, Tin, Volatile oils, Zinc.

## CAYENNE

*Capsicum annuum; Solanaceae*



**HABITAT & DESCRIPTION:** Cayenne grows in America, Africa, Japan, and India. It has a branched stem and a leaf shaped much like a lance. It grows a bell-shaped white or green flower, which appears during the spring and summer months. After it flowers, its hollow and elongated fruit appears. When ripened, the fruit is normally a bright and shining fiery red, but can also be orange, yellow or green.

**PARTS USED:** The ripe fruit.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>, C, and E.

**TRADITIONAL USES:** This herb has been used for hundreds of years to increase internal blood flow and increase peripheral blood circulation. It has also been found to induce sweating and stimulate blood flow to the skin. As a digestive aid it is used to relieve gas and colic, and stop bleeding from ulcers. It has also been found helpful in preventing and treating nausea. It is excellent as an anti-inflammatory, having been proven to be effective in the treatment of chronic pain such as found in rheumatism, arthritis, foot and ankle pain in diabetics, and post herpetic neuralgia. It has also been found to inhibit substance P which is utilized in the pain response. For chronic pain it is often more effective and less harmful than many other anti-inflammatories. When used as an anti-inflammatory, start with small amounts to make sure you are able to tolerate Cayenne. It is extremely effective in treating pain, but take the time to evaluate your tolerance. Externally it is used as an effective counterirritant, and antiseptic. Many common skin rubs contain Cayenne constituents, which are used to reduce the aches and pains of muscular stress. For asthma and bronchitis sufferers, Cayenne offers antiasthmatic, antiallergic and expectorant properties which combine well with its ability to increase circulation and encourage clearing of the mucous in the airways. Cayenne is usually taken in capsule form and there are products such as "Cool Cayenne" which are more easily tolerated by those with sensitive G.I. tracts.

**SELF-HELP USES:** Inflammation, Circulation, G.I. Tract, Lungs, Diabetes.

**COMPONENTS:** 1,8-Cineole, Acetic-acid, Alanine, Alpha-pinene, Arginine, Arsenic, Ascorbic acid, Asparagine, Aspartic-acid, Beta Carotene, Beta-pinene, Beta-sitosterol, Betaine, Caffeic-acid, Calcium, Camphene, Capsaicin, Carotenoids, Carvone, Caryophyllene, Chlorogenic-acid, Choline, Chromium, Cinnamic-acid, Cobalt, Copper, Cycloartenol, Cystine, Flavonoids, Folacin, Galactose, Glutamic-acid,

Glycine, Glucosamine, Histidine, Iron, Leucine, Limonene, Linalool, Linoleic acid, Magnesium, Manganese, Molybdenum, Myrcene, Myristic-acid, Nickel, Oxalic-acid, PABA, Palmitic-acid, Pantothenic-acid, P-Cymene, Phenylalanine, Phosphorus, Potassium, Pulegone, Quercetin, Riboflavin, Scopoletin, Selenium, Serine, Silicon, Stigmasterol, Tin, Volatile oil.

## CELERY SEED

*Apium graveolens*

**HABITAT & DESCRIPTION:** Celery grows primarily in the damp areas of Southern Europe, Asia, Africa, and America. It resembles domestic celery, but it is smaller and possesses a disagreeable taste. The fruits are dark brown seeds.

**PARTS USED:** Juice, roots and seeds.

**VITAMINS:** A, B, and C.

**TRADITIONAL USES:** Traditionally used to reduce blood pressure and alleviate muscle spasms. Its blood pressure reducing abilities are derived partly from its action as a diuretic. It also has a mild sedative effect and acts as a vasodilator. Celery seed is also good for reducing the inflammation associated with arthritis. It acts as an antioxidant and is said to have a cleansing effect on both the liver and kidneys. Because of its insulin like activity and its ability to suppress adrenaline hyperglycemia and may also be useful in the treatment of diabetes. Celery seed also contains many cancer-fighting phytochemicals which may be beneficial in long term care as well as a preventative. It can be taken in tincture, tea, capsule or powder form.



**SELF-HELP USES:** Hypertension, Inflammation, Liver, Diuretic, Diabetes, Cancer, Sedative.

**COMPONENTS:** Acetic-acid, Adenosine, Alanine, Alpha-pinene, Angelic acid, Apigenin,



Apiole, Arginine, Arsenic, Ascorbic acid, Asparagine, Aspartic-acid, Bergapten, Beta-carotene, Beta-pinene, Caffeic-acid, Calcium, Camphene, Carvone, Chlorogenic-acid, Choline, Chromium, Cobalt, Copper, Coumarin, Cystine, Ferulic-acid, Glutamic-acid, Glycine, Histidine, Iron, Isoimperatorin, Isoquercitrin, Isovaleric-acid, Leucine, Ligustilide, Limonene, Linalool, Linoleic acid, Luteolin, Magnesium, Manganese, Menthone, Molybdenum, Myrcene, Myristic-acid, Myristicin, Niacin, Nickel, Oleic-acid, Oxalic-acid, Palmitic-acid, Pantothenic-acid, P-Cymene, Phenylalanine, Phosphorus, Potassium, Protocatechuic-acid, Psoralen, Quinic-acid, Riboflavin, Scopoletin, Selenium, Serine, Silicon, Sinapic-acid, Sodium, Sulfur, Thiamin, Umbelliferone, Zinc.

## CHAMOMILE

*Matricaria Chamomilla;*  
*Anthemis nobilis*

**HABITAT & DESCRIPTION:** Chamomile is an annual herb originally from Europe which has escaped to the wild and is now naturalized on almost every continent. The branched stem is somewhat erect, round, hollow, and grows to about twenty inches tall. The leaves are light green and feathery, while the flowers are daisy-like about one inch across and bloom from May to October. It has a pineapple scent.

**PARTS USED:** Flowers.

**VITAMINS:** A.



**TRADITIONAL USES:** Traditionally noted and cherished for its effectiveness and gentleness as a mild sedative and antispasmodic. It is used to treat restlessness, nervousness, sleeplessness, upset stomachs, and menstrual pain. It is mild and safe enough for babies and the elderly, and is used for its calming effect in conventional medicine around the world. Chamomile is used as a digestive aid and appetite stimulant and is also effective for more serious gastrointestinal disorders, such as colitis and diverticulosis. For disorders of the G.I. tract a tea can be made and consumed several times daily. As an anti-inflammatory it is effective for treating arthritis, rheumatism, muscle cramps and muscular pain. It is also used to treat the symptoms of colds, asthma, and hemorrhoids. Many have used Chamomile to kill and expel worms. Chamomile is taken as a tea, tincture,

powder or capsule form.

**SELF-HELP USES:** Sedative, Stomach, Menses, Spasm.

**COMPONENTS:** Apigenin, Ascorbic acid, Azulene, Borneol, Caffeic-acid, Calcium, Chamazulene, Chlorogenic acid, Choline, Flavonoids, Fructose, Furfural, Galactose, Geraniol, Glucose, Hyperoside, Iron, Isoferulic acid, Isorhamnetin, Kaempferol, Linoleic acid, Luteolin, Magnesium, Malic acid, Manganese, Mucilage, Niacin, Oleic acid, Palmitic acid, Phenolic acids, Potassium, Quercetin, Resin, Rutin, Sinapic-acid, Tannin, Tannic-acid, Thiamin, Tiglic acid, Umbelliferone, Volatile oil.

**CAUTION:** Some say that large doses are emetic. Do not use if allergic to Ragweed. Do not use for long periods of time.

## CHAPARRAL

*Larrea divaricata;* *Zygophyllaceae*

**HABITAT & DESCRIPTION:** Chaparral grows primarily in the dry desert areas of the USA and northern Mexico. It is a perennial plant growing from two to ten feet in height. The stem is dark green and the leaves are strong-scented and resinous, consisting of two small leaflets. Small, bright yellow, five-petal flowers bloom in spring and winter.

**PARTS USED:** Leaves.

**VITAMINS:** N/A



**TRADITIONAL USES:** This is a bitter herb that acts as an exceptional free-radical scavenger. Part of Chaparral's capabilities as a free-radical scavenger might be due to its ability to increase adrenal ascorbic-acid levels and to protect against the formation of tumors and cancer cells. It is believed that it protects from the harmful effects of radiation and sun exposure, as well as some other carcinogens. Chaparral has a reputation for being one of the best herbal antibiotics. It is also good for skin disorders, leg cramps, arthritis, and is considered an excellent

pain inhibitor for backs, necks, shoulders and other chronic pains. Chaparral is taken as a tea, tincture, powder or in capsule form.

**SELF-HELP USES:** Cancer, Antiviral, Antibacterial, Anti-inflammatory.

**COMPONENTS:** Arginine, Ascorbic acid, Aspartic acid, Beta Carotene, Borneol, Calcium, Camphene, Chromium, Cystine, Fats, Glutamic acid, Glycine, Iron, Leucine, Magnesium, Manganese, Niacin, NDGA (Nordihydroquaiaretic acid), Phenylalanine, Phosphorus, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sodium, Sulfur, Thiamin, Tin, Tryptophan, Volatile oils, Zinc.

## CHICKWEED

*Stellaria media;* *Caryophyllaceae*



**HABITAT & DESCRIPTION:** Chickweed is an annual herb, widespread in temperate zones, arctic zones, and has established itself all over the world (possibly carried on the clothes and shoes of explorers). Chickweeds are as numerous in species as they are in region. Most are succulent and have white flowers, and all with practically the same edible and medicinal values. They all exhibit a very interesting trait – they "sleep" every night as the leaves fold over the tender buds and the new shoots.

**PARTS USED:** Above ground portion.

**VITAMINS:** C, B<sub>6</sub>, B<sub>12</sub>, and D.

**TRADITIONAL USES:** The traditional use has been to increase mucilage content and soothe mucous membranes of the bowels and lungs. In this role it has been effective for the treatment of stomach ulcers and inflamed bowels. The mucilage acts to soothe inflamed lung tissue and also as an expectorant to aid in the clearing of mucous. Externally it can be used as a poultice for burns, boils, sore eyes and other skin diseases. It has been used as a blood purifier and to reduce fat deposits in the arterial walls, liver and blood. It has also been called an effective cancer treating agent and, being as gentle as it is, should easily be incorporated into the diet. Chickweed is used as an ointment, or

can be taken as a tea, powder or in capsule form.

**SELF-HELP USES:** Asthma, Immunostimulant, Stomach.

**COMPONENTS:** Ascorbic acid, Beta Carotene, Calcium, Chromium, Cobalt, Iron, Linoleic acid, Magnesium, Manganese, Mucilage, Niacin, Oleic acid, Palmitic acid, Phosphorus, Potassium, Protein, Riboflavin, Rutin, Selenium, Silicon, Sodium, Sulfur, Thiamin, Tin, Zinc.

## CHICORY

*Cichorium intybus*



**HABITAT & DESCRIPTION:** Chicory, a member of the same family as the dandelion, is a perennial plant indigenous to Eurasia but introduced to the USA. It has bright blue flowers that bloom from July to September.

**PARTS USED:** Herb and root.

**VITAMINS:** A, C, G, B, K and P.

**TRADITIONAL USES:** Traditionally it has been used for digestive disorders, gout and rheumatism. It has also been said that regularly drinking it as a tea can prevent gallstones. The chemical constituents also justify it as an anti-inflammatory for use in chronic pain. Because of the phytochemicals present, it's indicated that it may be of value in cases of AIDS, cancer and other viral infections. In ancient Rome, Chicory was used as a blood purifier and food preservative and purifier. Chicory is used as a tea, tincture, capsule, or in powder form.

**SELF-HELP USES:** Stomach, Inflammation, AIDS, Cancer, Digestive system.

**COMPONENTS:** Arginine, Ascorbic acid, Beta-carotene, Betaine, Caffeic-acid, Calcium, Choline, Fats, Ferulic-acid, Fructose, Glucose, Histidine, Inositol, Inulin, Iron, Kaempferol, Leucine, Linoleic acid, Magnesium, Myristic-acid, Niacin, Oleic acid, Palmitic acid, Phosphorus, Potassium, Protein, Riboflavin, Scopoletin, Sodium, Thiamin, Tryptophan, Umbelliferone, Vanillic-acid.

## CINNAMON / CAMPHOR

*Cinnamomum camphora*



**HABITAT & DESCRIPTION:** Native to Japan, China, Taiwan, Vietnam, and Korea (where it was used for oils and timber), the cinnamon tree has spread to Australia, the southern USA, Caribbean, and Africa. This tree grows best in areas that are dry and disturbed, such as roadsides. The cinnamon tree ranges between twenty-five and forty feet. A quick and easy method of identifying this tree is by crushing the leaves or peeling a twig or bark. This will release oils and the scent of cinnamon.

**PARTS USED:** Dried inner bark of the shoots of the cinnamon tree.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally it has been used to stimulate the circulatory system and as an aid for treating colds, diarrhea, cramps, and spasms. It also works as an immune system enhancer and anti-inflammatory. It has several excellent components for the heart, as well as for asthma and bronchitis sufferers. Its phytochemicals contain expectorants, antiasthmatic and antihistaminic components. It contains several phytochemicals that are anticarcinogenic and some of the constituents have been shown to be helpful against the HIV virus (the soothing effect on the digestive tract might be helpful as well). Cinnamon is easily made into a tea, or may be found in capsule and tincture form.

**SELF-HELP USES:** Heart, Stomach, Lungs, Circulatory system, Anti-inflammatory, Spasms, Cancer, HIV

**COMPONENTS:** Acetic-acid, Alpha-pinene, Azulene, Beta-pinene, Borneol, Cadinene, Caffeic-acid, Camphor, Caprylic-acid, Carvacrol, Caryophyllene, 1,8-Cineole, Coumarin, Cyanindin, Formic acid, Furfural, Geraniol, Kaempferol, Limonene, Linalool, Myrcene, Myristic-acid, P-Cymene, Phellandrene, Phenol, Quercetin, Saffrole.

## COLTSFOOT

*Tussilago farfara*

**HABITAT & DESCRIPTION:** Coltsfoot is a common perennial plant in Europe and Asia, found sporadically in North America. It can grow in damp or dry conditions and grows well on alkaline clays. Coltsfoot is usually found in places such as wastelands or on the side of the road or railway. Its yellow flowers emerge in early spring and bear a close resemblance to Dandelions.

**PARTS USED:** Berries, fruits and leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally it has been used internally for the treatment of stubborn coughs, asthma, bronchitis, catarrh, and for inflammation of the mucous membranes. When combined with Horehound and Marshmallow root it is one of the most effective herbal cough remedies available. It is used externally for various skin problems including ulcers, burns, cuts, scrapes and hard-to-heal sores. Coltsfoot is effective against inflammation, fever, diarrhea, and for treating infections and enhancing the circulatory and immune system because it has hyperocide and hyperin in it. Coltsfoot may be used in tincture form as a tea, or taken in capsule form. It can also be made into an ointment for external use.

**SELF-HELP USES:** Lungs, Antiseptic, Anti-inflammatory, Circulation.



**COMPONENTS:** Arabinose, Arsenic, Calcium, Caoutchouc, Choline, Copper, Cryptoxanthin, Fructose, Galactose, Gallic acid, Glucose, Hyperin, Hyperoside, Inulin, Iron, Magnesium, Malic acid, Manganese, Mucilage, Myristic-acid, Palmitic acid, Pectin, Potassium, Quercetin, Rutin, Sitosterol, Sodium, Stigmasterol, Tannins, Volatile oils, Zinc.



## COMFREY ROOT

*Symphytum officinale*

**HABITAT & DESCRIPTION:** Comfrey is a perennial plant found in North America, Europe, and Western Siberia. It thrives in moist, watery places. The rootstock is black outside, fleshy and whitish inside, and contains a glutinous juice.

**PARTS USED:** Leaves and roots.

**VITAMINS:** A, C, and E.

**TRADITIONAL USES:** Comfrey, used for centuries as a wound-healer and bone-knitter, has been considered one of the most valuable herbs known. It is excellent for reducing pain and swelling associated with wounds, ulcers and sores. It has oftentimes been combined with other herbs such as Oak bark and Mullein to treat bone fractures and to reduce their healing time. It is effective for asthma, coughs, catarrh, tuberculosis and for stopping internal hemorrhage (from the stomach, lungs, bowels or hemorrhoids). Native Americans smoked Comfrey for relief of asthma, bronchitis and chest colds. Comfrey may be smoked, although it is not recommended. The more common and preferred method of delivery is tincture, tea or capsule.

**SELF-HELP USES:** Lungs, Stomach, Bowels, Pain.

**COMPONENTS:** Ascorbic acid, Asparagine, Beta-carotene, Caffeic-acid, Calcium, Chlorogenic acid, Choline, Chromium, Cobalt, Consolidine, Fats, Fructose, Glucose, Gum, Glucuronic acid, Gum, Iron, Magnesium, Manganese, Mucilage, Niacin, Phosphorus, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sitosterol, Sodium, Stigmasterol, Sucrose, Thiamin, Tin, Zinc.



**CAUTION:** Large amounts of Comfrey (for prolonged use) may cause liver damage. Do not use longer than three months at a time. Use only under careful supervision by your physician or health care practitioner.

## CORNSILK

*Stigmata maydis*

**HABITAT & DESCRIPTION:** Cornsilk is part of the common vegetable, corn, which grows throughout the world and is cultivated in North America. The fine, silky, yellowish threads are about one inch in length and 1/20 of an inch in diameter. Cornsilk is finely-haired, with a slightly sweet taste and no perceptible odor.

**PARTS USED:** Stylus.

**VITAMINS:** K.

**TRADITIONAL USES:** Traditionally used to



treat the bladder, kidneys, and conditions of cystitis. It has a cleansing effect on the kidneys and bladder and not only reduces their inflammation, but acts as a diuretic to flush the system. Used for hypertension because of its diuretic effect, it is also effective against many other types of edema. It has been used to decrease painful urination (caused by an enlarged prostate gland) as well as to decrease the frequency of bed-wetting. Cornsilk may be taken as a tea, or used in tincture or capsule form.

**SELF-HELP USES:** Diuretic, Hypertension, Prostate.

**COMPONENTS:** Alkaloids, Ascorbic acid, Cryptoxanthin, Ethanoic acid, Fluorine, Malic acid, Oxalic acid, Palmitic acid, Pantothenic acid, Resin, Saponins, Silicon, Sitosterol, Stigmasterol, Tartaric acid.

## DAMIANA

*Turnera aphrodisiaca*

**HABITAT & DESCRIPTION:** Damiana grows in Mexico, South America, Texas, and the West Indies. It thrives in dry, rocky, sandy areas. It is a small shrub with smooth green leaves and yellow flowers.

**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Damiana has one of the strongest reputations for enhancing sexual activity than any other herb. Its use as an aphrodisiac has been traced all the way back to the Myans. It is said to help both sexes by increasing vitality as well as the sperm count in males, and normalizing hormonal levels for females. It is also used to diminish headaches, control bed-wetting and stimulate muscular contractions of the intestinal tract to help alleviate constipation. As a laxative it is gentle enough to use for children. Damiana may be taken as a tincture, tea, capsule or powder form.

**SELF-HELP USES:** Aphrodisiac, Menses, Laxative.

**COMPONENTS:** Alpha-copaene, Alpha-pinene, Arbutin, Ascorbic acid, Beta-carotene, Beta-pinene, Beta-sitosterol, Calcium, Chromium, 1,8-Cineole, Cobalt, Fat, Gum, Iron, Magnesium, Manganese, Niacin, P-Cymene, Phosphorus, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sodium, Starch, Tannins, Thiamin, Thymol, Tin, Volatile Oils, Zinc.



## DANDELION

*Taraxacum officinale*

**HABITAT & DESCRIPTION:** Dandelion is a perennial herb thought to be introduced from Europe and Asia. It is now naturalized throughout the Northern Hemisphere. Dandelion is a very easily grown plant; it succeeds in most soils. It becomes quite large when cultivation, the leaves reaching a foot or more in length.

**PARTS USED:** Leaves, roots, and tops.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>, B<sub>12</sub>, C, E, P, and zinc.



**TRADITIONAL USES:** Traditionally known as a cleanser and detoxifier for the liver, it also has excellent effects on the kidneys, spleen, stomach, pancreas, and gallbladder (increases bile production). It improves the function of the pancreas, spleen, stomach, kidneys, and reduces serum cholesterol and uric acid in the blood. Because of its ability to reduce uric acid Dandelion is popular to use for gout. When it is combined with analgesics it is quickly effective for the treatment of this disease, however, it should be taken daily. It is also used as a diuretic and for anemia, rheumatism, jaundice, cirrhosis, hepatitis, abscesses, boils, cramps, edema and constipation. Externally it can be applied to corns, acne, blisters and warts. The juice from broken stems may be left to dry on a wart for two to three days and, it is said, the wart will disappear. Indications are that it might also help in the prevention of breast cancer and age spots. Dandelion is most often taken as a tea, but it can also be found in tincture and capsule form.

**SELF-HELP USES:** Liver, Stomach, High cholesterol, Anti-inflammatory.

**COMPONENTS:** Arsenic, Ascorbic acid, Beta-carotene, Calcium, Chlorine, Choline, Chromium, Cobalt, Copper, Cycloartenol, Fats, Fructose, Glucose, Glutamic acid, Gluten, Gum, Iodine, Inositol, Inulin, Iron, Linoleic acid, Linolenic acid, Magnesium, Manganese, Mucilage, Molybdenum, Niacin, Nicotinic acid, Oleic acid, Palmitic acid, PABA, Pectin, Phosphorus, Potassium, Proteins, Resin, Selenium, Silicon, Sodium, Sulfur, Tannins, Thiamin, Tin, Zinc.

## DEVIL'S CLAW

*Harpagophyllum procumbens*



**HABITAT & DESCRIPTION:** Originally from South Africa, use of the plant has made its way to America via the British Isles. It thrives best in clay and/or sandy soils; it seems to prefer the soils along roadsides and grows well in waste grounds. Its name comes from the small hooks on the plant's fruit.

**PARTS USED:** Root.

**VITAMINS:** A, B<sub>12</sub>, and E.

**TRADITIONAL USES:** Traditionally used for the pain of arthritis, rheumatism and other muscular aches and pains, Devil's claw has shown itself to be one of the most outstanding healers in the herbal world. It acts as a sedative, an anti-inflammatory, and anti-rheumatic. Particularly used for the treatment of rheumatism, arthritis, gout, myalgia (muscle pain) and lower back pain, it has also built a reputation for being helpful in arteriosclerosis and diabetes. Many of its properties are similar to Chaparral which is also effective in cleansing and rejuvenating the arterial walls, veins and capillary walls. It also reduces fats and toxins in the blood and liver. Because of its ability to cleanse fat and plaque from the circulatory system, it is a wonderful herb to take periodically. Devil's claw may be found as a tincture, or in capsule form.

**SELF-HELP USES:** Pain, Inflammation, Cardiovascular system, Diabetes.

**COMPONENTS:** Acetoside, Calcium, Chlorogenic acid, Chromium, Cinnamic acid, Cobalt, Fisetin, Fructose, Glucose, Harpagide, Harpagoside, Iron, Kaempferol, Luteolin, Magnesium, Manganese, Oleanolic acid, Phosphorus, Potassium, Protein, Selenium, Silicon, Sodium, Sucrose, Tin, Zinc.

## DONG QUAI

*Angelica Sinensis*

**HABITAT & DESCRIPTION:** Dong quai is found in mainland China, Japan and Korea. It is a fragrant perennial herb which can grow up to six feet tall and produces white flowers in early summer. It is typically found in damp mountain ravines, meadows, river banks, and near the sea.

**PARTS USED:** Leaves.

**VITAMINS:** A, B<sub>12</sub>, and E.

**TRADITIONAL USES:** Traditionally used to reduce the effects of aging and to increase sexual activity. It was also used to treat cramping, irregular periods, PMS, hot flashes, fatigue, menopause and vaginal dryness. It is believed that the phytochemicals found in Dong Quai increase the effects of ovarian and/or testicular hormones, making it effective in treating many disease processes having to do with aging and hormonal imbalances. It has many properties beneficial to the heart and circulatory system, combining anti hypertensives, mild sedatives, and liver cleansing with other protective properties. The phytochemicals seem to validate many of these claims. Dong Quai may be found in capsule or tincture form.



**SELF-HELP USES:** Anti-aging, Heart, Circulation, Menopause, Amenorrhea.

**COMPONENTS:** Alcohols, Alpha-pinene, Arachidonic acid, Ascorbic acid, Bergapten, Beta-carotene, Beta-sitosterol, Biotin, Cadinene, Calcium, Carvacrol, Choline, Chromium, Cobalt, Copper, Essential oil, Fats, Ferulic acid, Folacin, Fructose, Glucose, Iron, Isosafrole, Ligustilide, Linoleic acid, Magnesium, Manganese, Myristic acid, Nicotinamide, Nicotinic acid, Oleic acid, Palmitic acid, Pantothenic acid, P-Cymene, Phosphorus, Potassium, Protein, Riboflavin, Safrole, Scopoletin, Selenium, Silicon, Sucrose, Sodium, Sucrose, Thiamin, Tin, Umbelliferone, Vanillic acid, Zinc.

## ECHINACEA

*Echinacea angustifolia & purpurea, coneflower*

**HABITAT & DESCRIPTION:** Echinacea is a perennial native to North America. Its flowers can be found in summer, decorating open fields, dry open woods, prairies and barrens. Also known as "Purple Coneflower," it is a very ornamental plant, and is often grown in gardens, parks and landscapes. Echinacea has large daisy-like flowers (with purple or pink rays surrounding a brownish-orange cone) which bloom from July to October and reach four to five inches in diameter.

**PARTS USED:** Roots and leaves.





**VITAMINS:** A, C, E, and xylose.

**TRADITIONAL USES:** One of the most widely used herbs today, Echinacea, is used to fight infections or to enhance immune system activity (clinical and experimental studies confirmed these applications). It is used for colds, colic, flu, and as a blood purifier, analgesic and antiseptic. The American Indians used it externally to treat insect bites, stings, skin rashes and snake bites. Internally they used it to prevent and shorten the duration of all types of illnesses. Because of its ability to increase the body's immunity and for its antibiotic, anti-inflammatory, and antiviral properties Echinacea has a wonderful and wide range of uses. Echinacea is a herb that should be included in the daily diet of people who are suffering from long-term illnesses or diseases in which the immune system is compromised. It may be found in teas, capsules and tinctures.

**SELF-HELP USES:** Immune system, Bacterial and Viral Infections.

**COMPONENTS:** Alpha-pinene, Apigenin, Arabinogalactan, Arabinose, Ascorbic-acid, Beta Carotene, Betaine, Beta-sitosterol, Borneol, Caffeic-acid, Calcium, Caryophyllene, Chlorogenic-acid, Chromium, Cobalt, Copper, Cynarin, Echinacein, Echinacin, Echinolone, Enzymes, Essential oils (EO), Flavonoid, Ferulic-acid, Fructose, Galactose, Germacrene-D, Glucose, Glucuronic acid, Inulin, Iron, Kaempferol, Limonene, Luteolin, Magnesium, Manganese, Myrcene, Niacin, Palmitic acid, Phosphorus, Polyacetylene compounds, Polysaccharides, Potassium, Protein, Quercetin, Resin, Riboflavin, Rutin, Selenium, Silicon, Sodium, Stigmasterol, Sucrose, Sulfur, Tannins, Thiamin, Tin, Verbascoside, Zinc.

## ELDERBERRY

*Sambucus nigra*

**HABITAT & DESCRIPTION:** Elderberry, which grows in Europe and North America, is a shrub or small tree which grows between ten and thirty feet high. White or yellow flowers develop into the fruit - berries that turn from green through red-brown to shiny black.

**PARTS USED:** Entire plant.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used as an anti-hypertensive and circulatory stimulant, it's also been found to be excellent for the heart. It has hypotensives and diuretic constituents that work to lower the blood pressure and also contains capillarigenics (which increase the health of the capillaries and their ability to transport blood) and cardiotonics to strengthen the heart. It is used externally as an astringent, and can be used internally as an expectorant and anti-inflammatory. Several of its phytochemicals have been shown to be cancer fighting and Kaempferol has been shown to be effective against the HIV virus. Elderberry may be taken as a tea, tincture or in capsule form.

**SELF-HELP USES:** Heart, Hypertension, Cancer, HIV, Pain.



**COMPONENTS:** Alanine, Alpha-amyrin, Arginine, Ascorbic acid, Aspartic acid, Astragaloside, Beta-amyrin-palmitate, Beta-carotene, Beta-sitosterol, Betulin, Biotin, Caffeic-acid, Calcium, Caprylic-acid, Chlorogenic acid, Choline, Cyanin, Cycloartenol, Cystine, Ferulic-acid, Glutamic acid, Glycine, Histidine, Iron, Isoquercitrin, Kaempferol, Leucine, Linoleic acid, Malic acid, Mucilage, Myristic-acid, N-Hentriacontane, Niacin, Nicotinic acid, Oleanolic-acid, Oleic acid, Palmitic acid, Pantothenic acid, Pectin, Phenylalanine, Phosphorus, Potassium, Quercetin, Riboflavin, Rutin, Stigmasterol, Tannins, Thiamin, Tryptophan, Ursolic acid, Valerianic acid.

## EUCALYPTUS

*Eucalyptus globus*

**HABITAT & DESCRIPTION:** Eucalyptus trees are indigenous (with a few exceptions) to Australia and Tasmania. Now they can be found in North and South Africa, India, and Southern Europe. They are quick growers and many species reach a height of several hundred feet. The leaves are leathery in texture, hang obliquely or vertically, and are studded with glands containing a fragrant volatile oil. The "eu" and "kalypto" means "well" and "covered" in Greek, referring to the cup-like membrane that covers the

flower bud, which is thrown off as the flower expands.

**PARTS USED:** Oil from the leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used externally as an antiseptic, or as a rub for bruised and tired muscles. It is also used in preparations for inhalation for chest colds, asthma and bronchitis. Taken both internally, or inhaled, it acts as an expectorant, a cough suppressant, and has been found helpful for chest colds, asthma, emphysema and many other diseases which require the clearing of mucous from the airways. It has been used internally as an anti-inflammatory and muscle relaxant as well as for an immune system enhancer. It also acts as a central nervous system stimulant. Eucalyptus is generally used in oil form for external applications, or in tinctures for internal use.

**SELF-HELP USES:** Lungs, Muscular pain, Immune system.

**COMPONENTS:** Alpha-pinene, Beta-pinene, Caffeic-acid, Camphene, Carvone, Chlorogenic-acid, 1,8-Cineole, Ellagic acid, Essential oils, Ethanol, Ferulic-acid, Gallic acid, Pinene, Hyperoside, P-Cymene, Protocatechuic-acid, Quercetin, Rutin.



## EVENING PRIMROSE

*Oenothera biennis L.*

**HABITAT & DESCRIPTION:** Evening Primrose is a North American native biennial plant which grows to four or five feet or more in height. The bright yellow flowers, which bloom from July to September, are over two inches in diameter have four petals, a cross shaped stigma and a refluxed calyx (leaves under petals). The flowers open in the evening and close up during the day and are strongly scented with a delicious sweet perfume which attracts pollinating moths. Evening primrose grows by roadsides, railway banks and waste places in dry open soils, gravelly places, meadows and old fields.

**PARTS USED:** Leaves and bark.

**VITAMINS:** F.

**TRADITIONAL USES:** Traditionally used internally as a cough remedy, it is also used to soothe the stomach, and to stop heavy bleeding



and cramping from menses. For external preparations it is used to treat all types of skin disorders and eruptions. It is an excellent astringent for healing cuts and wounds. Evening primrose oil is also used as an antispasmodic, and to reduce the discomfort and pain involved in hot flashes, multiple sclerosis, arthritis and alcoholism. Evening primrose oil may be found in capsules, or can be used in tincture form.

**SELF-HELP USES:** Cough, Astringent, Menses.

**COMPONENTS:** Alanine, Alpha-amyrin, Arginine, Aspartic-acid, Beta-sitosterol, Caffeic-acid, Calcium, Copper, Cycloartenol, Cystine, Delphinidin, Ellagic acid, Gallic acid, Glutamic

acid, Glycine, Histidine, Iron, Kaempferol, Leucine, Lignin, Linoleic acid, Magnesium, Manganese, Mucilage, Oleic acid, Palmitic acid, Phenylalanine, Phosphorus, Potassium, Quercetin, Serine, Sodium, Starch, Tannins, Tryptophan, Zinc.

## EYEBRIGHT

*Euphrasia officinalis*



**HABITAT & DESCRIPTION:** Eyebright is found in the Arctic regions of Europe, northern and western Asia, and select areas of North America. It is typically found in meadows, pastures, and other grassy areas. Eyebright is an annual herb with a twisted, dark brown root. The stem grows up to 12 inches in height. Red or purple and white flowers appear from June to September.

**PARTS USED:** Entire plant except the root.

**VITAMINS:** A, B3, B5, B12, C, D, and E.

**TRADITIONAL USES:** Traditionally used, externally, as an eye rinse for all types of infections and conjunctivitis. It soothes eyestrain discomfort, minor irritations and prevents abnormal secretions of fluid from the eyes. Internally, it acts to stimulate the liver (removing toxins from the blood) at the same time adding strength and elasticity to all parts of the eye. Eyebright also acts as an anti-inflammatory, astringent, alterative, and expectorant. As an eyewash Eyebright is used in tea form, but may also be found as a tincture and powder.

**SELF-HELP USES:** Eye, Stomach, Diarrhea, Colds.

**COMPONENTS:** Ascorbic-acid, Aucubin, Beta-carotene, Bitters, Caffeic-acid, Calcium, Choline, Chromium, Essential oils, Fats, Ferulic-acid, Inositol, Inulin, Iron, Magnesium, Manganese, Niacin, PABA, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Tannins, Thiamin, Tin, Volatile oils, Zinc.

## FENNEL

*Foeniculum vulgare*

**HABITAT & DESCRIPTION:** Fennel, a hardy, perennial, umbelliferous herb, with yellow flowers and feathery leaves, grows wild in most parts of temperate Europe, but is generally considered indigenous to the shores of the Mediterranean.

**PARTS USED:** Berries, fruits, roots and stems.

**VITAMINS:** N/A

**TRADITIONAL USES:** Fennel has been used internally as an appetite suppressant and digestive aid for hundreds of years. In India the roasted seeds are used as an after meal sweet, and as a digestive aid. It's useful for acid stomach, gastrointestinal tract spasms, and abdominal pain, gas and colon disorders. As an expectorant, Fennel works very effectively and has been regularly used to help asthma, bronchitis and other problems with respiratory tract congestion. It has also shown properties which aid in spleen, liver and kidney function. It's been found to be effective in the treatment of gout, and is beneficial for cancer patients after radiation or chemotherapy treatments. Fennel acts as a diuretic, anticonvulsive, pain reliever and is used externally as eyewash. It has also been used as a mild sedative for young children. Normally, Fennel is used as a spice, but may be



found as a tea, powder, tincture or in a capsule.

**SELF-HELP USES:** Cancer, Heart, Lungs, Eyes, Digestive tract, HIV.

**COMPONENTS:** Alanine, Alpha-pinene, Anethole, Anisic-acid, Apiole, Arginine, Ascorbic-acid, Aspartic-acid, Avicularin, Bergapten, Beta-carotene, Beta-pinene, Beta-sitosterol, Caffeic-acid, Calcium, Camphene, Camphor, Chromium, Chlorine, Choline, Chromium, 1,8-Cineole, Cinnamic-acid, Citric acid, Cobalt, Copper, Cynarin, Cystine, Dipentene, Essential oils, Estragole, Fats, Fenchone, Ferulic-acid, Glutamic-acid, Glycine, Histidine, Imperatorin, Iodine, Iron, Isoquercitrin, Kaempferol, Limonene, Linalool, Linoleic acid, Magnesium, Malic acid, Manganese, Myrcene, Myristicin, Niacin, Nickel, Oleic acid, P-Cymene, Palmitic acid, Pectin,



Phellandrene, Phenylalanine, Phosphorus, Pinene, Potassium, Protein, Protocatechuic-acid, Psoralen, Quercetin, Quinic-acid, Riboflavin, Rutin, Scopoletin, Selenium, Serine, Silicon, Sinapic-acid, Sodium, Stigmasterol, Sugar, Sulfur, Thiamin, Tin, Tryptophan, Umbelliferone, Vanillic-acid, Volatile oils, Zinc.

**CAUTION:** Because of the ingredient apiole it should not be taken during pregnancy.

## FENUGREEK

*Trigonella foenum-graecum*

**HABITAT & DESCRIPTION:** Native to North Africa and countries bordering the eastern Mediterranean, fenugreek is a highly mucilaginous plant that grows in open areas and is widely cultivated, notably in India. Fenugreek grows to twenty inches in height. The taproot produces a smooth, round stem with few branches. It is sometime referred to as "Greek hayseed."

**PARTS USED:** Seeds.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>, B<sub>12</sub>, D.



**TRADITIONAL USES:** Fenugreek is noted for being an excellent aid for stabilizing blood glucose levels, which might be of benefit to diabetics. It is also said to reduce fevers, lower blood cholesterol, increase intestinal peristalsis, as well as being good for the eyes. Traditionally it has been used to reduce mucus, act as an expectorant, help in the relief of asthma, bronchitis, pneumonia and other lung disorders. It contains several antihistaminic phytochemicals that will inhibit allergic reactions which may cause asthma or other respiratory difficulties. It provides mucilage to soothe the mucosal lining of the respiratory tract (it is very respected for its beneficial effects on the gastro-intestinal tract) and it may be used as a gentle laxative. Its phytochemicals have several constituents which act together to treat cardiovascular and heart disease, and they also contain several anti-carcinogenic and antiviral components. Fenugreek may be found in capsule, tincture or powder form.

**SELF-HELP USES:** Lungs, Heart,

Hypertension, Cancer, HIV, Laxative.

**COMPONENTS:** Alanine, Arabinose, Arginine, Ascorbic-acid, Aspartic-acid, Beta-carotene, Biotin, Calcium, Chlorine, Choline, Chromium, Cobalt, Copper, Coumarin, Cystine, Fats, Glutamic acid, Glycine, Histidine, Inositol, Iron, Kaempferol, Lecithin, Leucine, Lignin, Luteolin, Magnesium, Manganese, Mucilage, Niacin, Nicotinic acid, Oleic acid, Orientin, PABA, Phenylalanine, Phosphates, Phosphorus, Potassium, Protein, Quercetin, Riboflavin, Selenium, Serine, Silicon, Sodium, Sucrose, Thiamin, Tigogenin, Tin, Trigonelline, Trimethylamine, Tryptophan, Vitexin, Volatile oils, Zinc.

## FEVERFEW

*Chrysanthemum parthenium*

**HABITAT & DESCRIPTION:** Feverfew is a perennial herb native to southeastern Europe and Asia. It is naturalized widely elsewhere and oftentimes found growing on rocky slopes, walls, and waste places. The leaves have a refreshing aromatic aroma. Growing to almost three feet, the stem is covered with many daisy-like flower heads which bloom from June to August, with white ray flowers surrounding nearly flat yellow centers, growing to about one inch across.

**PARTS USED:** Bark, dried flowers and leaves.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally it has been shown to work well on migraines and other headaches, arthritis, fever, and muscle tension. It is also effective in treating the discomfort of indigestion, colds and flu, and is often used to break a fever in these types of illnesses. It stimulates the appetite, uterine contractions, promotes menses and increases fluidity of lung and bronchial tube mucus. Because of its actions on the bronchial tubes it is often used with other herbal remedies for lung infections and asthma. Native Americans used it in several herbal recipes to kill and expel worms. Feverfew may be taken as powder, tincture, or capsule.

**SELF-HELP USES:** Migraines, Fever, Worms, Asthma.

**COMPONENTS:** Alpha-pinene, Ascorbic-acid, Beta-carotene, Beta-pinene, Borneol, Calcium, Camphene, Camphor, Choline, Chromium, Cobalt, Folic acid, Iron, Limonene, Magnesium,

Manganese, Niacin, Phosphorus, Potassium, Riboflavin, Selenium, Silicon, Sodium, Tannins, Terpene, Thiamin, Tin, Zinc.

## FLAXSEED

*Linum usitatissimum*

**HABITAT & DESCRIPTION:** Flaxseed is thought to have originated in Egypt and was found from the Mediterranean to India. However, it is one of the oldest cultivated plants known and has been found during the excavation of ancient Egyptian tombs. Today, it is cultivated around most of the world. Flaxseed is a small annual herb with a single stem that reaches a maximum of four feet in height. Flax blossoms have five petals and are usually blue in color, but can also be bright red. After the flowers have died, flax bears a fruit that is a round dry capsule less than a centimetre in diameter. Each capsule contains several seeds which resemble small apple pips.

**PARTS USED:** Seeds.

**VITAMINS:** N/A



**TRADITIONAL USES:** With its cultivation dating back to 5000 BC, this herb has a noble past. Its fiber was used to weave the wrapping for the Egyptian mummies. It has been traditionally used to reduce pain and inflammation in the digestive tract. It acts as a mild laxative and seems to normalize the tonus of a spastic colon. It is also frequently used in the treatment of amenorrhea and aids in reducing bloating associated with menses. Flax seed oil is a good cough suppressor and it helps build strong nails, bones, and teeth and promotes healthy skin. It has also been used to reduce or prevent several types of tumorous growths. This herbal oil is generally taken in capsule or liquid form.

**SELF-HELP USES:** Anti-inflammatory, Stomach, Cancer, and Osteoporosis.

**COMPONENTS:** Acetic-acid, Alanine, Arginine, Arsenic, Aspartic-acid, Beta-carotene, Beta-sitosterol, Calcium, Chlorine, Choline, Chlorogenic-acid, Chromium, Cobalt, Cycloartenol, Cyanindin, Cystine, Delphinidin, Fats, Glucose, Glutamic acid, Glycine, Glycosides, Gum, Histidine, Iron, Lecithin, Leucine, Linoleic acid, Linolenic acid, Luteolin, Magnesium, Malic acid, Manganese, Molybdenum, Mucilage, Myristic-acid, Niacin, Nickel, Oleic acid, Orientin, Pantothenic-acid, Pectin, Phenylalanine, Phosphorus, Phytol, Potassium, Protein, Riboflavin, Saturated

acids, Serine, Silica, Sodium, Stigmasterol, Sulfur, Tannins, Thiamin, Tin, Tryptophan, Vitexin, Wax, Zinc.

## FO-TI

*Polygonum multiflorum; Ho Shou Wu*

**HABITAT & DESCRIPTION:** This herb is cultivated widely in central and southern China; this region is also the original home of this plant. It is actually an herbaceous vine, which quickly spreads and covers any available surfaces. The flowers are delicate that bloom in the fall. The root tubers are reddish-brown in color and wrinkled.

**PARTS USED:** Root.

**VITAMINS:** N/A

**TRADITIONAL USES:** Also called "Ho Shou Wu" it has been used for premature aging for centuries. It works on the hormonal system, heart, cardiovascular system and acts as an immunostimulant. It is said to restore prematurely gray hair, relieve dizziness, blurred vision, infertility, impotence, spermatorrhea, leukorrhea and anemia. Fo-Ti also has a calming effect on the nervous system, and aids digestion and removing toxins from the liver and kidneys. Because of the nature of its phytochemicals, Fo-Ti should be considered for all types of age related diseases as well as a supplement for cancer, AIDS and HIV patients. Fo-Ti may be taken in capsule, powder or tincture form.

**SELF-HELP USES:** Aging, Cancer, AIDS.

**COMPONENTS:** Anthraquinone, Ascorbic-acid, Beta-carotene, Calcium, Chromium, Chrysophanic-acid, Cobalt, D-Catechin, Emodin, Fats, Iron, Lecithin, Magnesium, Manganese, Phosphorus, Potassium, Protein, Rhaponticin, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin, Zinc.



## FOXGLOVE

*Digitalis lanata*



**HABITAT & DESCRIPTION:** Digitalis lanata is common in the Balkans and in Turkey. It grows to much the same size as Digitalis purpurea, but the flowers are very different with their longer pointed lips, overall ochre colouring, and dark veins. Digitalis lanata is to be found on roadsides, in meadows and by the side of tracks - almost anywhere, in fact.

**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Until the late 18<sup>th</sup> century, the leaves of Foxglove were used in Europe purely for the healing of wounds and skin diseases. It was only when an English doctor, William Withering, found that Foxglove was the active herb used in a folk recipe to treat dropsy that its value as a heart medication became better known. It is currently prescribed around the world for heart failure and for regulating the heart beat. In the United States and Canada, only the extracted pharmaceuticals are used, although the leaf has been shown in some studies to be more effective (at lower dosages) and to have fewer side effects. One other effect of Fox glove is that it increases urine production, acting as a diuretic which aids in reducing hypertension. Fox glove is one of a very few that herbs actually contain digoxin. Foxglove may be taken as a tincture or in tea form. In some areas it is also available in capsule form.

**SELF-HELP USES:** Heart, Diuretic.

**COMPONENTS:** Acetic-acid, Apigenin, Caffeic-acid, Chlorogenic-acid, Choline, Citric acid, Ferulic-acid, Folic acid, Gallic acid, Inositol, Luteolin, Tigogenin.

**CAUTION:** This herb should only be used by a professional practitioner. All parts of the plant are extremely poisonous.

## GARLIC

*Allium sativum*

**HABITAT & DESCRIPTION:** Garlic is originally from Central Asia but now grows all over the world. It is usually in sunny places with rich, sandy, and moist soil. Garlic grows up to two to three feet. It has long, flat leaves and white flowers. Its bulb has many cloves that are papery white.

**PARTS USED:** Bulb.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, C, and Zinc.

**TRADITIONAL USES:** Traditionally garlic is known to be a natural antibiotic which detoxifies the body, protects it from infection, strengthens blood vessels and lowers blood pressure. Many of its phytochemicals work together on the cardiovascular system by lowering blood cholesterol, lowering blood pressure, eliminating and inhibiting the formation of plaque on the arterial walls, strengthening the heart muscle and guarding against arrhythmias. Garlic has also been found to effectively fight viral infections, fungus, and bacteria as well as several forms of cancer. It also works by strengthening the immune system, and is helpful when the immune system has been compromised as in AIDS. This wonderful herb is also beneficial in the treatment of asthma, arthritis, cancer, digestive disorders, insomnia, liver disease, sinusitis, ulcers and yeast infections. The herb may be taken in capsule form, tincture and used in cooking. It is such an extraordinary herb that it should be a part of everyone's daily diet supplementation.



**SELF-HELP USES:** Heart, Circulatory system, Cancer, HIV, Lungs, Digestion, Immunity, Bacterial and Viral infections.

**COMPONENTS:** Adenosine, Alanine, Allicin, Arginine, Ascorbic-acid, Aspartic-acid, Beta-carotene, Beta-sitosterol, Biotin, Caffeic-acid, Calcium, Chlorogenic-acid, Choline, Chromium, Cobalt, Copper, Cystine, Ferulic-acid, Geraniol, Germanium, Glutamic-acid, Glycine, Histidine, Iodine, Iron, Kaempferol, Leucine, Linalool, Magnesium, Manganese, Niacin, Nickel, Nicotinic acid, Oleic-acid, Oleanolic-acid, Phenylalanine, Phosphorus, Potassium, Potassium, Quercetin, Riboflavin, Selenium, Serine, Silicon, Sinapic-acid, Sulfur, Stigmasterol, Thiamin, Tin, Volatile oils, Zinc.



## GENTIAN

*Gentiana lutea*

**HABITAT & DESCRIPTION:** Native of the alpine and sub-alpine pastures of southern and central Europe, gentian is also found in Asia Minor and is cultivated in the United States. It has a thick, branching, yellowish-brown root producing a hollow stem reaching four feet in height. Large yellow flowers bloom from July to August.

**PARTS USED:** Roots and leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used to stimulate the appetite, gastric secretions, and aid digestion. It is often recommended for people suffering from nausea and loss of appetite. When used as an apéritif it causes the digestive juices to immediately flow. When using it in this manner, combine it with another herb such as Cardamom for flavor, Gentian is one of the bitterest herbs on earth. It is also used as an effective vermicide, eradicating both worms and plasmodia. It has also been used for improving both spleen and liver function. It is still commonly used to treat gout, colds and fevers. It contains several anti-carcinogens and may offer some promise in cancer prevention or treatment. Gentian is normally used as a tincture or in tea form, but may also be found in capsule form.



**SELF-HELP USES:** Parasites, Digestive system, Cancer, Colds and Flu.

**COMPONENTS:** Amide, Ascorbic-acid, Chromium, Cobalt, Gentian, Limonene, Linalool, Nicotinic-acid, Phosphorus, Potassium, Protocatechuic-acid, Sinapic-acid, Tin, Xanthone.

## GINGER

*Zingiber officinale*

**HABITAT & DESCRIPTION:** The ginger plant is an erect plant that grows from one to three feet tall. Ginger is a tropical plant found in East Asia and Australia. India and China are the largest suppliers of the Ginger used today.

**PARTS USED:** Roots and rhizomes.

**VITAMINS:** B<sub>3</sub>, B<sub>5</sub>, B<sub>9</sub>, zingerone and zingiberene.

**TRADITIONAL USES:** Traditionally used in the treatment of colitis, diverticulosis, gas, indigestion, nausea, morning sickness, paralysis of the tongue, menstrual cramps and hot flashes. It has an excellent reputation for cleansing the colon, stimulating circulation and diminishing cramps and spasms. It has been found to be as effective, or even more so, than many prescription drugs in treating motion sickness and other types of nausea. Because of its anti-carcinogenic properties and anti-nausea properties, it may be valuable in cancer and HIV patients suffering from chronic stomach problems. Like most herbs, it may be of benefit for many symptoms of the same disease. Ginger can be used as a spice, but for herbal applications it is generally taken as a tincture, syrup, or in capsule form.



**SELF-HELP USES:** Digestive tract, Nausea, Inflammation, Menstrual Pain.

**COMPONENTS:** Alpha-curcumene, Ascorbic-acid, Asparagine, Aspartic-acid, Beta-thujone, Camphene, Caprylic-acid, Caryophyllene, Chlorogenic-acid, Choline, Chromium, Cineole, Citral, Delphinidin, Furfural, Inositol, Kaempferol, PABA, Phellandrene, Phosphorus, Potassium, Resin, Trans-Beta-Farnesene, Vanillic-acid, Volatile oils.

## GINKGO

*Ginkgo biloba*

**HABITAT & DESCRIPTION:** Ginkgo biloba is a perennial deciduous tree, native to eastern China. They grow as tall as seventy feet and live (some say) a thousand years. When male and female trees are grown together, the female produces yellow plum-like fruits in autumn which when ripe look (strangely) like little brains! The leaves are green to gold, fan-shaped,

petioled, with many radiating veins and about four to five inches wide.



**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally it has been used to improve memory, brain function, depression, cerebral and peripheral circulation, oxygenation and blood flow. Because of its properties of increasing blood flow to the brain it is good for Alzheimer's disease, tinnitus, asthma, heart and kidney problems, as well as glucose utilization. It is also showing promise for stroke patients by aiding in their recovery and preventing blood clots. Ginkgo is also used for coughs, allergies, and asthma by acting as an expectorant, antitussive and antiasthmatic. It is also effective in the treatment of leukorrhea, spermatorrhea, bed wetting, nocturnal emission, headache, vertigo, tinnitus, coldness, arthritis, rheumatism, hearing loss, and poor peripheral circulation. The French have done excellent research in natural blood clotting, increasing arterial flow and decreasing organ transplant rejection using Ginkgo's remarkable attributes. Its enhancement of peripheral circulation may be used in combinations of other herbs such as Cayenne to maximize the effects of both herbs, or in conjunction with a relaxant such as Chamomile, to facilitate its relaxing effects. Ginkgo is normally taken in tincture or capsule form.

**SELF-HELP USES:** Memory, Circulation, Asthma.

**COMPONENTS:** Apigenin, Arginine, Ascorbic-acid, Asparagine, Aspartic-acid, Beta-carotene, Calcium, Caprylic-acid, Citric acid, Copper, Cystine, D-Catechin, Formic acid, Galactose, Glucose, Glutamic-acid, Glycine, Histidine, Iron, Isorhamnetin, Kaempferol, Leucine, Linoleic acid, Luteolin, Magnesium, Manganese, Myristic-acid, Niacin, Nicotinic-cid, Nonacosane, Oleic acid, Palmitic acid, Pantothenic-acid, P-Cymene, Phenylalanine, Phosphorus, Potassium, Quercetin, Quinic-acid, Riboflavin, Serine, Sodium, Starch, Stigmasterol, Sucrose, Tannins, Thiamin, Thymol, Tryptophan, Valerianic acid, Zinc.

## GOLDENSEAL

*Hydrastis Canadensis*

**HABITAT & DESCRIPTION:** Goldenseal is a native North American perennial plant which is found mostly in shady deep woods and damp meadows. It prefers rich, well-drained soil, shade, and can be cultivated by using seeds or transplanting seedlings. Goldenseal grows to about eighteen inches high; the stem and leaves are hairy and deep green.

**PARTS USED:** Roots and rhizomes.

**VITAMINS:** B complex, A, C, and E.

**TRADITIONAL USES:** Used by Native Americans as a dye as well as a medicine, Goldenseal has a very long history. The Native Americans used it for wounds, lesions on the skin, and for vaginal inflammation. Goldenseal strengthens the immune system, acts as an antibiotic as well as an antiviral, and reduces inflammation. It is used for colds, flu, swollen glands, prostate, bladder, nausea, hypoglycemia, vaginal infections, and gum disease. It is soothing to the digestive tract, and relieves the symptoms of gastritis and ulcers. Goldenseal possesses estrogenic properties which help to regulate menses and decrease uterine bleeding. Because of its ability to potentiate insulin and prevent hypoglycemia it is very useful in the treatment of diabetes. When used in conjunction with Gotu kola, Goldenseal acts as a brain tonic. Goldenseal tends to enhance the strongest qualities of other herbs, when taken in conjunction with them. It is an excellent synergist which can be used in many herbal formulas. Goldenseal may be taken as a tea, in capsule or tincture form.



**SELF-HELP USES:** Wounds, Diabetes, Menses, G.I. tract.

**COMPONENTS:** Albumin, Ascorbic-acid, Berberine, Beta-carotene, Biotin, Calcium, Chlorine, Chlorogenic-acid, Choline, Chromium, Corypalmine, Essential oils, Fats, Fatty oil, Hydrastine, Inositol, Iron, Lignin, Magnesium, Manganese, Niacin, PABA, Phosphorus, Potassium, Protein, Resin, Reticuline, Riboflavin, Selenium, Silicon, Sodium, Starch, Sugar, Thiamin, Tin, Volatile oils, Zinc.

**CAUTION:** This herb should not be taken when pregnant, or if suffering from high blood pressure. Goldenseal may cause uterine contractions or vaso constriction which will elevate blood pressure.

## GOTU KOLA

*Hydrocotyle asiatica*

**HABITAT & DESCRIPTION:** Gotu kola grows extensively in tropical and subtropical parts of India, Australia, Southern Africa, and South America. Gotu kola herb prefers shady, marshy damp and wet places such as paddy fields, grass areas and riverbanks. Although usually collected from wild, gotu kola can be cultivated from seed in spring.

**PARTS USED:** Seeds, nuts, and roots.

**VITAMINS:** K



**TRADITIONAL USES:** It is used in the treatment of congestive heart failure and other heart disease. It is a fairly strong diuretic and acts to reduce blood pressure and bloating. It is also believed to improve liver function, and has been used as a primary herbal treatment for hepatitis A and B. Its properties are also used to decrease fatigue and depression, and increases libido. For this reason, it is considered, and used as, a mild aphrodisiac. Gotu kola is also used to treat rheumatism, sore throat, tonsillitis, urinary tract infections, venereal disease, measles, insomnia, and stress. Gotu kola is taken as a tincture, capsule or in powder form.

**SELF-HELP USES:** Diuretic, Hypertension, Heart, Circulation, Infections.

**COMPONENTS:** Ascorbic acid, Aspartic acid, Beta-carotene, Beta-sitosterol, Calcium, Catechol, Chromium, Cobalt, Fats, Germacrene-D, Iron, Magnesium, Manganese, Niacin, Pectin, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin.

## HAWTHORN BERRIES

*Crataegus oxyacantha*

**HABITAT & DESCRIPTION:** Grown in Europe, North Africa, Western Asia, this tree will attain a height of thirty feet and lives to a great age. It possesses a single seed-vessel to each blossom producing a separate fruit, which when ripe is a brilliant red and resembles a miniature stony apple.



**PARTS USED:** Berries, fruits and leaves.

**VITAMINS:** B1, B2, B3, B5, B6, B9, B12 and C.

**TRADITIONAL USES:** For hundreds of years, hawthorn berries have been used to treat heart disease. It acts by strengthening the heart muscle, lowering blood cholesterol levels, dilating the coronary arteries, lowering blood pressure and regulating the heartbeat. Hawthorn also relieves abdominal distention and diarrhea, and is capable of acting as a tonic for the digestive system. Hawthorn may be taken in tea, or in capsule, powder or tincture form.

**SELF-HELP USES:** Heart, Hypertension, Arterial sclerosis.

**COMPONENTS:** Ascorbic-acid, Anthocyanin-type pigments, Choline, Chromium, Citric acid, Flavonoid, Glycosides, Hyperoside, Inositol, Oxalic-acid, PABA, Phosphorus, Potassium, Purines, Saponins, Selenium, Silicon, Sugar, Tartaric acid, Tin, Tyramine, Vitexin.

## HOPS

*Humulus lupulus*

**HABITAT & DESCRIPTION:** Native to England and now growing in the USA, Asia, Belgium, Germany, New Zealand, and Australia, hops is a plant that grows on vines; long stout stems with strong hairs to aid climbing that can reach over twenty feet in height. This herb bears dark green colored, heart-shaped leaves on a fibrous stalk with finely toothed edges.





**PARTS USED:** Berries, fruits and leaves.  
**VITAMINS:** B<sub>6</sub>.  
**TRADITIONAL USES:** Traditionally used as one of the safest and most effective tranquilizers and sedatives in the herbal kingdom. It has been used to help induce a restful sleep, and to quiet a nervous stomach, including irritable bowel syndrome. Hops decrease the desire for alcohol and are often used to aid in reducing chronic drinking problems. Hops also are used to reduce stress, nervousness, restlessness, and insomnia which have made it a wonderful sleep aid. Its sedative properties also make it valuable in the treatment of chronic pain, toothaches, earaches, muscle cramps, ulcers, and shock. Hops also acts as an appetite stimulant and has a mild laxative effect. It is also gentle enough for the elderly to use. For hundreds of years it has been used for its reported aphrodisiac affect on men. Hops may be found in powder, capsule and tincture form.  
**SELF-HELP USES:** Sedative, Cramps, Laxative.  
**COMPONENTS:** Ascorbic-acid, Asparagine, Astragalin, Beta-pinene, Chlorogenic-acid, Choline, Chromium, Cyanindin, Delphinidin, Essential oil, Epicatechin, Geraniol, Germacrene-D, Histidine, Humulene, Inositol, Isoquercitrin, Kaempferol, Leucine, Linalool, Lignin, Manganese, Myrcene, Oleanolic-acid, PABA, P-Cymene, Phenylalanine, Phosphorus, Picric acids, Pinene, Potassium, Resin, Serine, Silicon, Stigmasterol, Tin.

## HOREHOUND

*Marrubium vulgare*



**HABITAT & DESCRIPTION:** The herb

known as the horehound is a perennial herb that is often seen growing in open meadows and pastures, as well as in waste places, along railroad tracks and on roadsides in many parts of the coastal United States, in Canada, as well as in Great Britain, France and Germany on the European continent.

**PARTS USED:** Flowers and leaves.  
**VITAMINS:** B-complex, A, C, E, and F.  
**TRADITIONAL USES:** Traditionally used to increase mucus fluidity in bronchial tubes and lungs, and act as an expectorant to help clear airways. Its use may be traced back to the Egyptian pharaohs who used it as a cough remedy. It is an excellent herb for the treatment of asthma, chest colds, bronchitis, sore throats and coughs. In larger internal doses it acts as a laxative and has been used to kill and expel worms. It is also used to alleviate discomfort from abdominal bloating due to gas. Applied topically it is used for herpes simplex, eczema, shingles and other skin eruptions. Horehound may be found in candy, capsule, tincture and powder form.  
**SELF-HELP USES:** Coughs, Lungs, Skin eruptions, Laxative, Worms.  
**COMPONENTS:** Alpha-pinene, Ascorbic-acid, Beta-sitosterol, Caffeic-acid, Camphene, Choline, Gallic acid, Iron, Limonene, Mucilage, P-Cymene, Pectin, Potassium, Resin, Tannic-acid, Tannins, Volatile oils.

## HORSETAIL

*Equisetum arvense*



**HABITAT & DESCRIPTION:** Horsetail is native to both North America and Europe. It thrives in moist places, swampy areas, and sandy stream banks. Horsetail is a unique plant because it has two very different stems. In the early spring, it grows a stem that looks somewhat like asparagus. Later in the summer, the stem appears as a thin, green and somewhat feathery.  
**PARTS USED:** Stems.  
**VITAMINS:** B<sub>5</sub> and zinc.  
**TRADITIONAL USES:** Long used by the Native Americans to stop bleeding, both internally and externally. Its reputation as a hemostatic has been spread around the world. Horsetail is also a strong diuretic. It also acts to cleanse the kidneys

and is used to treat urinary tract and prostate infections. Horsetail is also used to aid in the absorption and utilization of calcium. It has been found that horsetail grass taken as a supplement reduces the healing time of bone fractures. It is a valuable supplement for patients suffering from bone loss, such as those suffering from osteoporosis and the elderly. Horsetail also strengthens hair, nails, bone, and teeth, as well as benefits those suffering with rheumatism and gout. Horsetail may be taken in tincture, tea or capsule form.

**SELF-HELP USES:** Diuretic, Bone repair, Osteoporosis, Gout.

**COMPONENTS:** Aconitic acid, Arsenic, Ascorbic-acid, Beta-carotene, Beta-sitosterol, Caffeic-acid, Calcium, Chromium, Cobalt, Copper, Ferulic-acid, Fluorine, Gallic acid, Iron, Isoquercitrin, Kaempferol, Luteolin, Magnesium, Malic acid, Manganese, Niacin, Nicotine, Oxalic-acid, PABA, Phosphorus, Potassium, Riboflavin, Silica, Silicon, Sodium, Starch, Tannic-acid, Thiamin, Tin, Vanillic-acid, Zinc.

## HUCKLEBERRIES

*Vaccinium myrtillus*



**HABITAT & DESCRIPTION:** In many parts of the United States, blueberries are mistakenly called huckleberries. Some people believe that blueberries are always blue while huckleberries are black or very dark purple. This is erroneous thinking, however, for some blueberries are very dark colored, and some huckleberries are very blue. One sure way to tell is to examine the seeds. Blueberries have many small, tiny, soft seeds, while huckleberries have ten large, crunchy seeds.

**PARTS USED:** Entire plant.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally one of the best herbs for the treatment of diabetes. It helps to lower insulin and blood sugar levels and keep them more stable. It may be particularly helpful for juvenile diabetics and those suffering from mild cases of diabetes. Those diabetics currently on insulin, may with the help of your doctor, see if this wonderful herb can help you maintain more constant blood sugar levels. Huckleberries are also excellent for the

circulatory system because of its ability to cleanse the arterial walls, prevent plaque buildup in the vascular system, rejuvenate the capillary system and prevent blood clots. Because of its phytochemical constituents it is also an excellent immune system enhancer and may be used to reduce inflammation, and treat sinusitis, ulcers, as well as kidney and bladder infections. Huckleberries may be taken in tincture or capsule form, or may be used as a tea.

**SELF-HELP USES:** Diabetes, Arterial sclerosis, Immunity, Infections.

**COMPONENTS:** Arbutin, Arsenic, Ascorbic-acid, Astragalin, Beta-carotene, Bromine, Caffeic-acid, Calcium, Caryophyllene, Chlorogenic-acid, Chromium, Citric acid, Cobalt, Copper, Cyanindin, Delphinidin, Epicatechin, Ferulic-acid, Fluorine, Gallic acid, Hydroquinone, Hyperoside, Inositol, Iron, Isoquercitrin, Magnesium, Malic acid, Manganese, Molybdenum, Myristicin, Myrtillin, Niacin, Oleanolic-acid, Pectin, Phosphorus, Potassium, Protein, Protocatechuic-acid, Riboflavin, Quinic-acid, Selenium, Silicon, Sodium, Sulfur, Tannins, Thiamin, Vanillic-acid, Zinc.

## IRISH MOSS

*Chondrus crispus*

**HABITAT & DESCRIPTION:** Irish moss can be found growing on rock from the middle intertidal zone downwards. It is seaweed that grows among submerged rocks off the coast of France and, naturally, Ireland. This moss always prefers shoreline thus found clinging to submerged rocks. Irish moss is also called "carrageen," which means "moss of the rocks" in Irish. Interestingly, Irish moss became associated with the Irish potato famine that occurred in the middle of the 19th century, the Irish moss was consumed as a food by thousands of desperate Irish people to ward off starvation.

**PARTS USED:** Entire plant.



**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used to reduce blood pressure and to act as a blood thinner. Its actions as a blood thinner are facilitated by the herbs action in preventing and

helping to reverse the effects of arterial sclerosis. It also has several phytochemicals that contribute to its diuretic and hypotensive activities as well. Irish moss has a very high mucilaginous content which is very soothing to both the digestive tract and lungs. It is for this reason that Irish moss is a very effective anti-ulcer herb as well as beneficial in asthma. As an anti-ulcer herb it coats and soothes the surface of the mucosal lining and allows it to heal. It is often successful in healing duodenal ulcers, peptic ulcers and reducing gastric secretions. Irish moss has also been used to treat thyroid disorders (goiter) and obesity. This is due at least in part to its iodine content. Several of the constituents may also contribute to its effectiveness. It helps to form bulky stools and checks diarrhea. It will also act as a laxative if taken in higher dosages. Irish moss may be found in capsule or tincture form.

**SELF-HELP USES:** Hypertension, Diarrhea, Obesity, Ulcers.

**COMPONENTS:** Amino acids, Arsenic, Ascorbic-acid, Beta-carotene, Bromine, Calcium, Carrageenan, Chlorine, Chromium, Cobalt, Iron, Magnesium, Manganese, Manganese salts, Mucins, Niacin, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin, Zinc.

## JUNIPER BERRIES

*Juniperis Communis*



**HABITAT & DESCRIPTION:** The Juniper is a small shrub, four to six feet high, widely distributed throughout the Northern Hemisphere. Juniper berries take two or three years to ripen, so that blue and green berries occur on the same plant. Only the blue, ripe berries should be picked.

**PARTS USED:** Berries and fruits.

**VITAMINS:** N/A

**TRADITIONAL USES:** Used since the time of ancient Greek and Arab physicians as a cure for urinary tract infections and as a diuretic. It is also used for the treatment of some vaginal

infections. Juniper was also used as an emmenagogue (an agent that promotes menstrual flow) for menstrual problems and irregularity. For this reason it should not be used if you are pregnant. Juniper tends to regulate sugar levels and is used as a supportive herb for diabetics. Its value is especially great to the pancreas, and in some cases where there is no permanent damage, it may restore more normal pancreas functions. It also reduces inflammation and relieves sinusitis. It is also very useful for treating the pancreas, kidney and bladder disorders, hypoglycemia, and ulcers. Juniper berries may be taken as a tincture, tea or in capsule form.

**SELF-HELP USES:** Urinary tract and Vaginal infections, Menses, Diabetes, Ulcers.

**COMPONENTS:** Acetic-acid, Alcohols, Alpha-pinene, Ascorbic-acid, Beta-carotene, Beta-pinene, Borneol, Calcium, Camphene, Camphor, Caryophyllene, Cedrol, Chromium, Cobalt, Cuparene, Fats, Flavone, Formic acid, Fructose, Germacrene-D, Glucose, Myrcene, P-Cymene, Phosphorus, Potassium, Resin, Sabinal, Silicon, Sugar, Sulfur, Tannins, Terpinene, Tin, Umbelliferone, Volatile oils

**CAUTION:** Do not use if pregnant.

## KAVA KAVA

*Piper methysticum*

**HABITAT & DESCRIPTION:** Kava is a tall shrub that grows in the islands of the Pacific Ocean. This shrub produces large, green, heart-shaped leaves that grow thickly on the branches. Long, slender flowers grow where the branches meet the stems. The roots look like bundles of woody, hairy branches.

**PARTS USED:** Root.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally used as a pain killer, sedative and anti-inflammatory. It has very strong muscle relaxing properties which combine very effectively with its anti-inflammatory and anesthetic properties to make it one of the more effective herbs for severe back, neck, and



other musculo-skeletal pain. It is also a very calming sedative, but is only recommended when the strongest sedation is required. When the raw root is chewed, the enzyme actions create a compound which is hallucinogenic. The preparation of the herb for medicinal use, such as found in tinctures, does not have hallucinogenic properties. Kava Kava is usually taken in tincture form.

**SELF-HELP USES:** Pain, Sedative.

**COMPONENTS:** Cinnamic-acid, Kawain, Methysticin, Yanguonin.

## KELP

*Fucus vesiculosus*

**HABITAT & DESCRIPTION:** Kelp is a type of seaweed, moderate in size, which grows in regions with cold coastlines, including those of the northwestern United States and northern Europe. Kelp anchors itself to rocky surfaces via tentacle-like roots. From these roots grows a slender stalk with long, leaf-like blades.

**PARTS USED:** Leaves.

**VITAMINS:** A, B<sub>1</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub>, B<sub>12</sub>, C, E, and zinc.



**TRADITIONAL USES:** Traditionally used as a hypotensive and cardiovascular cleanser, it has proven extremely valuable as both. It has been shown to not only lower blood pressure, but guards against plaque buildup in the arterial system. It is reputed to be beneficial to the sensory nerves, the membranes around the brain, brain tissue, and spinal cord. This may be attributed to the vast number of minerals and precursors for neurotransmitters and tissue synthesis available in kelp. Kelp is also known for its therapeutic properties in dealing with both goiter and hypothyroidism. It has been found to contribute to healthy and more stable thyroid hormone levels and to aid in stabilizing the hormonal balance of the whole body. It is high in iodine as well as other phytochemicals which are helpful in hormonal stabilization and production. As with most herbs from the sea, kelp has shown itself to very beneficial in treating ulcers and other digestive problems. It acts as a mild laxative which softens stools, and its mucilaginous constituents coat and soothe the digestive tract. Arthritis, rheumatism and chronic pain are all benefited by this herb. It contains many

antirheumatic and antiarthritic constituents. It seems to be most help when used on chronic musculo-skeletal pain. Kelp is also used for hair loss and protection from the effects of radiation. Kelp may be found in capsule, tablet, powder or tincture form.

**SELF-HELP USES:** Hypertension, Thyroid, Ulcers, Laxative, Rheumatism, Obesity.

**COMPONENTS:** Alginic acid, Arsenic, Ascorbic acid, Beta-carotene, Beta-sitosterol, Biotin, Bromine, Calcium, Choline, Chromium, Cobalt, Copper, Inositol, Iodine, Iron, Magnesium, Manganese, Mucilage, Myristic-acid, N-Hentriacontane, Niacin, Oleic acid, PABA, Palmitic acid, Phosphorus, Phytol, Potassium, Riboflavin, Selenium, Silicon, Sodium, Sulfur, Thiamin, Tin, Zinc.

## KOLA NUT

*Kola nitida*

**HABITAT & DESCRIPTION:** Kola nut comes from an evergreen tree that is native to Africa. While native to Africa, it's now cultivated in many tropical regions around the world. It grows as tall as 70 feet high and has white flowers. The seeds come from seed pods that grow on the tree. They are harvested when the fruit is ripe.

**PARTS USED:** Nut and herb

**VITAMINS:** N/A



**TRADITIONAL USES:** Used for the treatment of asthma, emphysema and bronchitis to open and dilate bronchial tubes. Its actions tend to elevate blood pressure and act as a mild hypertensive. It is also an excellent stimulant containing caffeine. Kola nut may be taken as a tincture, capsule or in tea form.

**SELF-HELP USES:** Hypertensive, Asthma, Stimulant.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Betaine, Caffeic-acid, Caffeine, Calcium, Cyanindin, D-catechin, Iron, Kaempferol, Phosphorus, Protein, Riboflavin, Starch, Sugar, Tannins, Thiamin.

## LICORICE ROOT

*Glycyrrhiza*

**HABITAT & DESCRIPTION:** Indigenous to rich low-lands and river valleys of southern Europe, the Middle East, and northern China, licorice root is cultivated in many parts of the world. It is brown, wrinkled, and woody, producing an erect striated stem two to five feet in height.



**PARTS USED:** Roots.

**VITAMINS:** B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>9</sub> and E.

**TRADITIONAL USES:** Licorice root is one of the best antiulcer herbs available. Research has been wide spread and the results for ulcer sufferers are excellent. Deglycyrrhized licorice may stimulate the body's defense mechanisms that prevent the occurrence of ulcers by increasing the amount of mucous-secreting cells in the digestive tract. This improves the quality of mucous, lengthens intestinal cell life, and enhances microcirculation in the gastrointestinal lining. Licorice derivatives have been recommended as a standard nutritional support for ulcer sufferers in Europe. It is beneficial for ulcerative colitis, diverticulosis, colitis, gastric and duodenal ulcers as well as protecting against their development. Licorice root combined with Fenugreek is extraordinary in treating ulcerative colitis, and other severe ulcerative conditions. A restoring and rejuvenative herb, it works as a general tonic for the whole body. Licorice is calming and alleviates stress, relaxes muscle pains, and decreases musculo-skeletal spasms. Combined with other herbs which act more specifically on pain and inflammation, it is a wonderful choice for rheumatism, arthritis and osteoarthritis. It strengthens the digestive system, improves energy and is good for hypoglycemia, bronchitis, gastritis, stress, colds, sore throats, nausea, and swelling. It is also useful in treating adrenal insufficiency and other glandular problems. It increases mucus fluidity from the lungs and bronchial tubes which results in more consistent clearing of the airways. It contains estrogenic phytochemicals and may benefit those who are in need of estrogen supplementation. It is the actions of these chemicals which have made licorice root a popular female tonic. Studies show that licorice root stimulates the production of interferon, which makes it very valuable as a cancer fighter and as a support herb for AIDS and HIV sufferers. Licorice may be taken as a tincture, capsule, candy, or powder form.

**SELF-HELP USES:** Ulcers, Immunostimulant, Estrogenic, Anti-spasmodic

**COMPONENTS:** Acetic-acid, Apigenin, Ascorbic-acid, Asparagine, Astragaloside, Biotin,

Bergapten, Carvacrol, Choline, Chromium, Cobalt, Estragole, Fat, Fatty oil, Fenchone, Formononetin, Furfural, Geraniol, Glycyrrhizin, Gum, Inositol, Isoquercitrin, Kaempferol, Lecithin, Linalool, Lignin, Manganese, Nicotinic acid, Oxalic acid, PABA, Pantothenic acid, P-Cymene, Phenol, Phosphorus, Potassium, Protein, Silicon, Sinapic acid, Stigmasterol, Sugar, Terpenes, Tin, Umbelliferone, Vitexin.

**CAUTION:** Do not use if you have high blood pressure. If you are using licorice root for prolonged periods of time, supplement your diet with potassium. Licorice root depletes the system of potassium.

## LOBELIA

*Lobelia inflata*

**HABITAT & DESCRIPTION:** Found in meadows, woods, and grassy places throughout the United States, lobelia can grow from six inches to three feet in height, and has an angular, hairy, yellowish-green stem.



**PARTS USED:** Seeds, flowers and leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** For hundreds of years, Native Americans have used Lobelia to treat lung disorders, both as a respiratory stimulant and anti-asthmatic. It has the ability to both reduce muscle spasms and bronchial spasms associated with asthma, and to reduce the coughs and fevers which accompany some lung disorders. Lobelia reduces fever and cold symptoms, is used as a relaxant and cough suppressant, good for sore throats, laryngitis, bronchitis, asthma, colic, epilepsy, angina pectoris and assists hormone production. This herb is one of the most powerful relaxants in the herb kingdom. It has been used for many ailments and disease processes where either anxiety or the depression from chronic pain has become a factor. It was also used extensively in the treatment of epilepsy. In cases where severe wounds were being treated, Native Americans used Lobelia to lessen the effects of pain by using the herb as a sedative - it was also used to decrease the pain in difficult labor. Used externally it may be combined with other herbs such as Slippery elm and soap to bring abscesses or boils to a head. Lobelia may be taken as a tea, tincture or in capsule form.

**SELF-HELP USES:** Sedative, Lungs, Anti-spasmodic.

**COMPONENTS:** Alkaloids, Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Iron, Linoleic acid, Lobeline, Magnesium, Manganese, Niacin, Phosphorus, Potassium, Riboflavin, Selenium, Silicon, Sodium, Sulfur, Thiamin, Tin, Zinc.

**CAUTION:** In large doses it can cause vomiting.

## MA HUANG

*Ephedra sinica*

**HABITAT & DESCRIPTION:** Ma Huang can be found growing in Northern China, Mongolia, India, the Southwestern USA, Persia, and western areas of South America. It grows as a small shrub, one to two feet in height, and produces red, poisonous cones.



**PARTS USED:** Stems and branches.

**VITAMINS:** N/A

**TRADITIONAL USES:** Ma Huang (Ephedra) has been used by the Chinese to relieve asthma for over 5000 years. It was not until the late 1800's that ephedrine, the most active constituent in the plant, was isolated. This herb is a very effective bronchodilator and quickly relieves the symptoms of wheezing and difficulty in breathing associated with asthma. Ephedra also acts as a stimulant to the heart and constricts local blood vessels, which may both stress the heart and raise blood pressure. Those suffering from high blood pressure or heart problems should avoid the use of this herb. Ma Huang may be taken as a tea, tincture or in capsule form.

## MANDRAKE

*Podophyllum peltatum*

**HABITAT & DESCRIPTION:** Mandrake is an herb found throughout the United States, especially the northeast. It grows in rounded, irregular clusters of 100 or more plants, preferring moist, shady woods and low, marshy grounds. A solitary white flower grows from the fork in the stem during May or June. The fruit is a large, yellowish berry which ripens in late September.

**PARTS USED:** Roots.

**VITAMINS:** K.



**TRADITIONAL USES:** Mandrake has been used for centuries as a very strong laxative. It should be used with caution because of its strong purgative effect. Recent research has shown that it has an ability to kill many types of cancer cells in test animals and is undergoing more testing to establish its efficacy as a cancer fighter. It has a great number of phytochemicals which have been shown to inhibit tumor growth as well as inhibit cancer and innumerable viruses, so it is likely to be of value as an anticancer and anti HIV herb. Mandrake has also been used to eliminate and kill and eliminate many parasites. When used as a wormer it should be used in conjunction with other herbs such as Wormwood, Cinnamon, and Cloves to achieve the best results. Remember that Mandrake is a very powerful herb and should be used sparingly and with professional supervision. Mandrake is usually used in tincture or capsule form, but may be used as a tea.

**SELF-HELP USES:** Laxative, Immunostimulant, Hypertension.

**COMPONENTS:** Astragalin, Berberine, Gallic acid, Hyperin, Hyperoside, Isorhamnetin, Kaempferol, Quercetin, Resin, Wax.



**CAUTION:** Mandrake should not be used during pregnancy.

## MARJORAM

*Origanum vulgare*

**HABITAT & DESCRIPTION:** Sometimes called "oregano," wild marjoram is an herb of the mint family which is native to Asia, Europe, and North Africa. It is cultivated all over the world. Marjoram is an aromatic, woody-based perennial, which grows one to three feet in height. The corolla (ring of united petals) is white to purplish.

**PARTS USED:** Leaves.

**VITAMINS:** A, C.



**TRADITIONAL USES:** Traditionally used in ancient Greece to improve blood flow and aid in digestion. Marjoram is a natural and effective diuretic which has been used to treat dropsy as well as other diseases which require reduction of bloating and edema. Many of its chemical constituents support its use as a digestive aid and it is still served in Greek restaurants today as a tea (dittany) to aid in digestion. As a digestive aid it reduces gas and relieves colic. Marjoram has tonic and stimulant properties which give it value in treating asthma, bronchitis and coughs. Its relaxing properties are known for reducing muscle spasms caused by overuse, tears, strains and splinting. Marjoram may be used as a spice, taken as a tincture, tea or in capsule form.

**SELF-HELP USES:** Digestion, Diuretic, Lungs, Relaxant.

**COMPONENTS:** Apigenin, Ascorbic-acid, Borneol, Cadinene, Carvacrol, Carvone, Caryophyllene, Chlorogenic-acid, Cinnamic-acid, Estragole, Geraniol, Germacrene-D, Kaempferol, Luteolin, Oleanolic-acid, Orientin, Phenol, Phosphorus, Potassium, Protocatechuic-acid, Vanillic-acid, Vitexin.

## MARSHMALLOW

*Althaea officinalis*

### HABITAT & DESCRIPTION:

Marshmallow is a native of most countries of Europe, from Denmark southward. It grows in salt marshes, in damp meadows, by the sides of ditches, by the sea and on the banks of tidal rivers. This plant grows to a height of three feet, its stems are round, and the purplish-blue flowers appear between July and September.

**PARTS USED:** Leaves, root, flowers.

**VITAMINS:** N/A



**TRADITIONAL USES:** Mentioned in the Bible as well as in Arabic and Chinese history, Marshmallow was used both as a food and a medicine. As a food, it was of value primarily to the poor, but as a medicine it was valued by all. Marshmallow contains a large portion of mucilage which helps loosen congestion in the bronchial tubes and lungs. This loosening of the phlegm aids in its expulsion, clearing the airways. For this reason as well as its other antiasthmatic constituents it has been used frequently and successfully as an herb for problems in the respiratory tract. The high mucilage content is very beneficial to the digestive tract as well as the lungs. It is commonly used to stop diarrhea and soothe the G.I. tract from ulcers and dysentery. Used as a poultice, it may be applied to bruises, wounds, burns, and infections. For internal use it may be taken as a tincture or in capsule form.

**SELF-HELP USES:** Lungs, G.I. tract, Wounds.

**COMPONENTS:** Ascorbic-acid, Asparagine, Beta-carotene, Caffeic-acid, Chlorogenic-acid, Choline, Chromium, Cobalt, Ferulic-acid, Kaempferol, Magnesium, Manganese, Niacin, Phosphorus, Potassium, Quercetin, Riboflavin, Scopoletin, Selenium, Silicon, Thiamin, Tin, Vanillic-acid, Zinc.

## MILK THISTLE

*Silymarin, Silybum marianum*

### HABITAT & DESCRIPTION:

Milk thistle grows from its native Mediterranean area to hillsides and roadways in California, where it is considered invasive. Milk thistle also grows wild in parts of South America and Australia. It can form thickets, which contribute to its classification as a nuisance weed. The flowers of milk thistle are red-purple and spiky.

**PARTS USED:** Fruits (they contain highest concentration), seeds and leaves.



**VITAMINS:** N/A

**TRADITIONAL USES:** Used centuries ago by the Romans for all liver problems (jaundice and hepatitis). Milk thistle protects the liver and regenerates it, even against the strongest liver toxin known (the death cap mushroom). It contains some of the most potent liver protecting substances known, and prevents free radical damage by acting as an antioxidant. Used for lowering fat deposits in the liver, liver cirrhosis, necrosis, and hepatitis A and B; and increasing lactation and milk supply. It stimulates new liver cell production and stops the formation of damaging leukotrienes. It also protects the kidneys and is good for those with psoriasis. For those that drink alcohol, take prescription drugs that may be harmful to the liver, or have had liver disease in the past, I highly recommend Milk thistle as part of a daily food supplement. Milk thistle may be taken as a capsule or tincture.

**SELF-HELP USES:** Liver, Kidney, Psoriasis.

**COMPONENTS:** Apigenin, Beta-carotene, Calcium, Chromium, Cobalt, Histamine, Iron, Kaempferol, Linoleic acid, Magnesium, Manganese, Palmitic acid, Phosphorus, Potassium, Quercetin, Selenium, Silicon, Sodium, Silymarin, Tin, Tyramine, Zinc.

## MILKWEED

*Asclepias syriaca*

**HABITAT & DESCRIPTION:** Milkweed, found throughout North America, is a perennial plant which grows to nearly six feet and has a milky juice. A stout plant with large leaves, large pink flower clusters and a strong fragrance, milkweed is a wonderful horticultural plant for landscaping to attract butterflies. Interestingly, milkweed is the only plant on which monarch butterflies lay their eggs. Toxic glycosides from the plant make the adult butterflies poisonous to birds and other predators.

**PARTS USED:** Roots.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally used primarily as a female herb, Milkweed was used to treat amenorrhea and to regulate menses. Because of its diuretic qualities it was also used to alleviate the bloating and edema often accompanying these problems. Because of this herb's diuretic qualities it is also used in conjunction with other herbs used to reduce hypertension. Milkweed has also been found to be stimulating to the gastrointestinal tract and increases perspiration. Many of the phytochemicals act as anti-inflammatories which may account for this herb's success in treating asthma, bronchitis, and arthritis. It is also used for gallbladder and kidney problems, and aids in controlling infections in the genito urinary tract. Milkweed may be taken as a capsule, tincture or in powder form.

**SELF-HELP USES:** Amenorrhea, Diuretic, Lungs, Kidney, Gallbladder.

**COMPONENTS:** Alpha-amyrin, Beta-sitosterol, Cinnamic-acid, Condurangin, Desglucouzarin, Fats, Glucose, Linoleic-acid, Linolenic acid, Nicotine, Oleic-acid, Palmitic-acid, Protein, Tannins, Uzarigenin.

**CAUTION:** Some reports are that it may not be safe for the elderly and children.

## MISTLETOE

*Phoradendron serotinum*

**HABITAT & DESCRIPTION:** American mistletoe, native to North America, is an evergreen, semi-parasitic plant that grows on other trees, most commonly the poplar and the apple. It bears small yellow flowers in early spring, but better known are its pearly berries.

**PARTS USED:** The herb.

**VITAMINS:** B<sub>12</sub>.



**TRADITIONAL USES:** Mistletoe has been used as an herb to lower blood pressure and act as a relaxant. Many of its phytochemicals are hypotensive in action and would account for its success in treating hypertension. It also relaxes the arterial walls and decreases arteriosclerosis. More recently it has been found to be an excellent immune stimulant and anti-cancer herb. It has been used in the treatment of lung, ovarian and other cancerous tumors. It is also effective after radiation treatment in reestablishing the immune system. Mistletoe is also effective against migraine headaches and is considered one of the best non addictive tranquilizers in the herb kingdom. Mistletoe is normally used as a tincture.

**SELF-HELP USES:** Cancer, Hypertension.

**COMPONENTS:** Calcium, Cobalt, Copper, Iodine, Iron, Magnesium, Phoratoxin, Potassium, Protein, Sodium, Tyramine.

**CAUTION:** Berries are very poisonous.

## MORMON TEA

*Ephedra nevadensis*



**HABITAT & DESCRIPTION:** Ephedra nevadensis, an erect shrub that reaches one to four feet and produces yellow cones, can be found growing on dry slopes and hills, sandy plains, canyons, and deserts in the southwestern USA and Mexico.

**PARTS USED:** Herb.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used as a stimulant, decongestant and bronchial dilator for the treatment of asthma and other respiratory diseases. For hundreds of years it has been used as a tea for breathing difficulty, as a diuretic and stimulant. As a stimulant it acts both on the heart and on the central nervous system, therefore it should not be used by the young or infirm. Mormon is generally taken as a tea or in tincture form.

**SELF-HELP USES:** Lungs, Stimulant.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Copper, Ellagic acid, Ephedrine, Gallic acid, Iron, Magnesium, Manganese, Niacin, Nonacosane, Phosphorus, Potassium, Resin, Riboflavin, Selenium, Silicon, Sodium, Tannins, Terpeneol, Thiamin, Tin, Zinc.

**CAUTION:** Overdose can be fatal, causing high blood pressure, racing of the heart, confusion, nervous stupor, twitching, convulsions and death.

## MOTHERWORT

*Leonorus cardiaca*



**HABITAT & DESCRIPTION:** A native of central Asia and the USA, motherwort is a perennial which grows in waste places and along roadsides, fences, and paths. It has an erect stem and grows between two and three feet high. The



flowers range from purplish to white and bloom from June to September.

**PARTS USED:** Above-ground portion.

**VITAMINS:** N/A

**TRADITIONAL USES:** Motherwort is used world wide for the same two principle reasons. It is an excellent hypotensive and cardiac tonic which eases angina pectoris, tachycardia, cardiac edema, palpitations and other heart conditions. It combines well with Hawthorn berries for all heart problems and recovery from severe heart disease. Motherwort's other predominant use is its ability to regulate and relieve menstrual disorders, i.e. delayed, stopped or painful menses and pain in the pelvic and lumbar region. It also acts as an antispasmodic for muscular cramps, and it's a strong diuretic which aids in its ability as a hypotensive herb, and as a sedative and nervine used for the treatment of nervousness, hysteria, convulsions and insomnia. The Chinese used it for PMS pain, postpartum pain, abdominal masses, and infertility. In ancient China it was called *Al mu@* and was used by the courtesans as birth control to prevent pregnancy. Motherwort is usually taken in tincture or capsule form.

**SELF-HELP USES:** Hypertension, Menses.

**COMPONENTS:** Alkaloids, Alpha-pinene, Ascorbic-acid, Beta-pinene, Caryophyllene, Choline, Citric acid, Fats, Genkwanin, Glycosides, Hyperoside, Isoquercitrin, Kaempferol, Limonene, Linalool, Malic acid, Protein, Oleanolic acid, Quercetin, Resin, Saponins, Stachydrine, Tannins, Ursolic acid.

**CAUTION:** Not to be taken during pregnancy.

## MUGWORT

*Artemisia vulgaris*



**HABITAT & DESCRIPTION:** Mugwort is found throughout Europe and North America and is even considered a weed in some places. The plant thrives in disturbed soil and waste ground.

It is a perennial which grows to approximately four feet high. Its leaves look like feathers and are dark green on the top, and its flowers are yellowish green.

**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Used by Native Americans for the treatment of colds, flu, bronchitis and fevers. It was also used for a smoking therapy as a mild sedative or nervine. Because it is believed to purify the spiritual and physical surroundings, the Native Americans used it as a smudge just as they used sage. As a bitter tonic it aids digestion and, though its a milder wormer than wormwood, it is used to kill and expel parasites. It is used to relieve menstrual irregularity, cramps, leukorrhea, abdominal pains, also to calm the uterus and fetus and to arrest threatened miscarriage. It acts as a hemostat and is used to stop nosebleeds and excessive menstrual bleeding. Its sedative properties have been used in the treatment of epilepsy and chorea. It can be applied externally as a liniment to relieve itching, fungus and other skin infections, or used as a douche to eliminate vaginal yeast infections. Mugwort may be used as an ointment externally and is generally used as a tincture or in capsule form for internal use.

**SELF-HELP USES:** Worms, Lungs, Wounds, Excessive bleeding, Sedative.

**COMPONENTS:** Alpha-amyrin, Alpha-pinene, Arsenic, Ascorbic acid, Beta-carotene, Beta-pinene, Beta-sitosterol, Borneol, Camphene, Choline, Chromium, 1,8-Cineole, Copper, Iodine, Linalool, Magnesium, Molybdenum, Myrcene, Niacin, Nickel, Phosphorus, Potassium, Riboflavin, Stigmasterol.

**CAUTION:** Do not use if pregnant except under the supervision of a physician.

## MULLEIN

*Verbascum thapsus;*  
*Scrophulariaceae*



**HABITAT & DESCRIPTION:** Mullein is found all over Europe and in temperate Asia as far as the Himalayas, and in North America. It can be found growing on hedge-banks, by roadsides and on waste ground, more especially on gravel, sand or chalk. It loves the sun and grows in well-drained soils, including dry ones, and dislikes

shade and wet soils. The flower-spike (sometimes growing to over eight feet high) is covered with densely crowded, sulphur-yellow, flowers about an inch across with five rounded petals and blooms during July and August.

**PARTS USED:** Leaves.

**VITAMINS:** B<sub>2</sub>, B<sub>5</sub>, B<sub>12</sub>, D.

**TRADITIONAL USES:** Native Americans have used Mullein for hundreds of years as a treatment for coughs, pneumonia, asthma, and bronchitis. They also smoked it to stop bleeding in the lungs. It was either smoked or taken as a tea. It contains expectorants as well as antiasthmatic and antispasmodic compounds which may be effectively delivered in either way. The flowers were used as a pain killer, sedative, and sleep aid. The leaves and flowers applied externally were used to remove warts and treat insect bites. It was also taken internally to act as a laxative or to treat bowel bleeding, hay fever, and swollen glands. Mullein may be taken in capsule or tincture form. Smoking mullein is not recommended.

**SELF-HELP USES:** Lungs, Sedative, Laxative, Allergies.

**COMPONENTS:** Ascorbic acid, Aucubin, Beta-carotene, Beta-sitosterol, Calcium, Choline, Chromium, Cobalt, Coumarin, Hesperidin, Iron, Linoleic acid, Magnesium, Manganese, Mucilage, Niacin, Palmitic acid, Phosphorus, Potassium, PABA, Riboflavin, Rotenone, Saponins, Selenium, Silicon, Sodium, Sulfur, Thiamin, Tin, Verbascoside, Zinc.

**CAUTION:** The seeds are considered toxic.

## NASTURTIIUM

*Tropaeolum majus*



**HABITAT & DESCRIPTION:** A native of Peru, nasturtium is widely grown in Australia and Europe. A sprawling, succulent annual growing up to a foot tall, its blue-green round leaves are carried on long fleshy stalks. The beautiful orange, red, or yellow flowers are trumpet shaped with a nectar-filled spur at the base.

**PARTS USED:** Entire plant.

**VITAMINS:** N/A

**TRADITIONAL USES:** Native to South America, Nasturtium was brought to Europe as a valued medicinal herb by Spanish conquistadors. Its primary use is as a natural antibiotic when taken internally. It is especially helpful for respiratory and urinary tract infections. Used as an ointment externally, it is an excellent antiseptic for wounds and all types of skin eruptions. Nasturtium may be taken as a tea, tincture or in capsule form.

**SELF-HELP USES:** Respiratory tract and Urinary tract infections, Antiseptic.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Calcium, Chlorogenic acid, Ethandioic acid, Iron, Isoquercitrin, Niacin, Oxalic acid, Phosphorus, Protein, Riboflavin, Thiamin.

## NETTLE

*Urtica dioica*

**HABITAT & DESCRIPTION:** Common throughout North America, nettle can be found in disturbed soils, along streams, open forests, and ditches, on mountain slopes and can be found on roadsides. But because it prefers nitrogen-rich soils, its favorite habitat is garden borders.



**PARTS USED:** Leaves, flowers and roots.

**VITAMINS:** A and C.

**TRADITIONAL USES:** Nettle is one of the best arthritic pain relievers in the herbal kingdom. In ancient Rome, even though it was painful, the stinging nettle was rubbed over arthritic joints. It was said to stop the pain and, over time, cure the condition. Today we know that it's possible to get many of the benefits for the treatment of rheumatoid and osteoarthritic conditions, without

the pain of enduring Nettle stings. Tinctures and teas are still used for treating many skin disorders such as eczema, skin eruptions, and nail fungus, but Nettle has been traditionally used to stimulate milk production. Nettle acts as an expectorant. It contains antiasthmatic constituents which are used in the treatment of bronchitis, colds, asthma, and other lung diseases. Nettle is also used as a diuretic, general tonic, circulatory stimulant, and bowel and colon stimulant. It is beneficial for the colon, urinary disorders, allergies, leukemia, hemorrhoids, goiter, kidneys, spleen, and lungs. It is also used in some worming combinations to kill and expel worms of the G.I. tract. Taken internally it's a good pain reliever used primarily for rheumatism, sciatica, neuritis, lumbago, and arthritis. Its antibiotic qualities seem to work best for nephritis, cystitis, kidney and bladder infections, gravel, and other urinary tract disorders. It may be used in tea, tincture, powder or capsule form.

**SELF-HELP USES:** Lungs, Arthritis, Inflammation, Infections, Skin.

**COMPONENTS:** Ascorbic-acid, Chlorine, Chromium, Formic acid, Histamine, 5-Hydroxytryptamine, Iodine, Lycopene, Magnesium, Molybdenum, Phosphorus, Potassium, Nicotinic acid, Oxypeucedanin, Osthole, Parsley camphor, Pinene, Phosphorus, Potassium, Protocatechuic-acid, Psoralen, Volatile and Essential oils.

## OATS

*Avena sativa*

**HABITAT & DESCRIPTION:** Oats can be found throughout Europe, Asia, South America, and North America. They grow best in dry soils with plenty of sunlight. Oats stand erect with flat, rough, but elongated leaves and have a golden seed shaped much like a spindle. They are in flower during June and July and their seeds ripen from August to October.

**PARTS USED:** Flowering tops, grain.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally used as a stimulant to the whole body and considered a wonderful, complete whole food with excellent restorative powers. At the same time that oats gained respect as a stimulant it was gaining even more respect as a treatment for nervous system disorders, such as chronic depression and melancholia. In Ayurvedic medicine it was used

to help in Opium withdrawal. When the grain is eaten it lowers blood cholesterol and acts to keep the bowel and colon in tone and prevent constipation. Applied externally it is used to relieve the dryness of skin conditions such as eczema. Oats may be taken as grain, flour, capsule or tincture.

**SELF-HELP USES:** Skin, Arterial sclerosis, Nervous disorders.

**COMPONENTS:** Acetic acid, Alanine, Arginine, Aspartic acid, Beta-carotene, Beta-sitosterol, Biotin, Caffeic-acid, Calcium, Caryophyllene, Chlorine, Choline, Chromium, Citric acid, Cobalt, Copper, Cystin, Ethandioic acid, Ferulic-acid, Folic acid, Fructose, Furfural, Glucose, Glutamic acid, Histidine, Iodine, Iron, Leucine, Lignin, Limonene, Magnesium, Malic acid, Manganese, Myrcene, Niacin, Oxalic acid, Palmitic acid, Pantothenic acid, Pectin, Phenylalanine, Phosphorus, Potassium, Protein, Quercetin, Quinic-acid, Riboflavin, Rutin, Saponins, Selenium, Serine, Silicon, Sinapic-acid, Sodium, Stigmasterol, Sucrose, Sulfur, Tartaric acid, Thiamin, Tryptophan, Vanillic acid, Zinc.

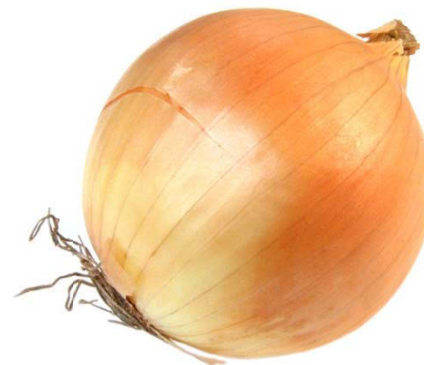
## ONION

*Allium cepa*

**HABITAT & DESCRIPTION:** Onion is native to southwest Asia but is widely cultivated throughout the world. It has a roundish bulb that is an underground part of the stem. Above ground the stem is hollow and blue-green, but not as long as the underground part of the stem. The flowers are greenish-white and bloom from June to August.

**PARTS USED:** Whole plant.

**VITAMINS:** N/A



**TRADITIONAL USES:** Onion has been valued as both an herb and a food for thousands of years. As a medicinal herb it's been found to be an excellent diuretic. It is used to reduce edema in the extremities and face, as well as to ease the bloating discomfort of menses. Onion is also an excellent expectorant and is used in the treatment of nasal congestion, bronchitis and asthma. As a cleanser and antibiotic it is used for the treatment of dysuria and dysentery. It is effective in the treatment of ulcers and mastitis, and has been used vaginally for trichomonas vaginitis. Onion may be eaten as a food or taken



in capsule, tablet, or tincture form.

**SELF-HELP USES:** Diuretic, Expectorant, Antibiotic, Trichomonas vaginalis.

**COMPONENTS:** Abscissic-acid, Acetic acid, Alanine, Alpha-Amyrin, Arabinose, Arginine, Arsenic, Ascorbic acid, Asparagine, Aspartic acid, Beta-carotene, Beta-sitosterol, Bromine, Caffeic-acid, Calcium, Choline, Chromium, Citric acid, Cobalt, Copper, Essential oils, Ethanoic acid, Fats, Ferulic-acid, Fructose, Glucose, Glycine, Histidine, Kaempferol, Iron, Leucine, Magnesium, Malic acid, Manganese, Molybdenum, Myristic-acid, Niacin, Nickel, Oleoic acid, Oxalic acid.

## PARSLEY

*Petroselinum crispum*

**HABITAT & DESCRIPTION:** Native to Eastern Mediterranean, parsley is now cultivated throughout the world. Parsley grows best in moist, well drained soil, with full sun. It is a bright green hairless plant that grows best in temperate climates. Curiously enough, parsley is poisonous to most birds but is very good for animals.

**PARTS USED:** Fruits, berries, stems, and roots.

**VITAMINS:** A and C.



**TRADITIONAL USES:** Though it is best known as a culinary herb it has many other values due to its wide range of phytochemicals. It has long been used as a diuretic for all types of edema. It is also a wonderful astringent for the urinary tract and exhibits antibiotic type activity there as well. Parsley is also used for digestive disorders including gas and indigestion as well as being used as an anthelmintic (a substance which kills and expels worms). In recent research, parsley is making a reputation for its ability to kill and prevent certain types of cancer cells from reproducing. It is also one of the best preventatives from disease because of its excellent immunostimulant actions. This property makes parsley a valuable supplement to those with an impaired immune system such as is found in the elderly, HIV, and AIDS patients. Parsley is also used in the treatment of goiter, rheumatism and hypothyroidism. Parsley may be made into a tea or taken in capsule or tincture form.

**SELF-HELP USES:** Diuretic, Cancer,

Menses, Immunity, HIV, AIDS, Worms.

**COMPONENTS:** Apigenin, Apiol, Arsenic, Ascorbic acid, Beta-carotene, Beta-pinene, Bromine, Caffeic-acid, Calcium, Camphene, Chlorogenic acid, Chromium, Cobalt, Copper, Essential oils, Estragole, Ethanol, Fats, Fluorine, Folic acid, Geraniol, Germacrene-D, Imperatorin, Inositol, Iron, Kaempferol, Limonene, Linalool, Magnesium, Manganese, Molybdenum, Myrcene, Myricetin, Myristicin, Niacin, Nickel, Nicotinamide, Osthole, Oxypeucedanin, Osthole, Pantothenic acid, Parsley camphor (apiin), Petroselinic acid, Pinene, Phosphorus, Potassium, Protein, Protocatechuic-acid, Psoralen, Quercetin, Riboflavin, Selenium, Sodium, Sulfur, Thiamin, Volatile and essential oils, Zinc.

## PAU D'ARCO

*Tabebuia impetiginosa*

**HABITAT & DESCRIPTION:** Pau d'arco is found throughout the rainforests of Central and South America, although it may be harvested as far north as southern Florida. There are about a hundred species of this large tropical tree. It is a broad-leaved evergreen that may grow to 150 feet in height, and six feet in diameter. Some species produce large, white flowers, while others produce purple or pink flowers.

**PARTS USED:** Inner bark.



**VITAMINS:** N/A

**TRADITIONAL USES:** It contains a natural antibacterial agent which fights several types of infections while it enhances the immunity. The antibacterial agent has been effective in the treatment of candidiasis, warts, and tumors. It is also used in the treatment and support of diabetes, ulcers, rheumatism, and allergies. Pau d'arco is also excellent support for HIV, AIDS, cancer, liver disease, and leukemia. Pau d'arco may be taken in tincture, tea or capsule form.

**SELF-HELP USES:** AIDS, HIV, Cancer, Infections.

**COMPONENTS:** Ascorbic-acid, Beta-carotene, Beta-sitosterol, Calcium, Chromium, Chrysophanic-acid, Cobalt, Iron,

Magnesium, Manganese, Niacin, Phosphorus, Potassium, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin, Zinc.

## PEPPERMINT

*Mentha piperita*

**HABITAT & DESCRIPTION:** Peppermint is naturalized from Europe and is found in damp places throughout North America. Peppermint propagates by means of its long, running roots from which are produced smooth, square stems from one to three feet in height. The leaves are a couple of inches long and pointed, and with sharply toothed margins. Peppermint's small purplish blossoms are in flower from July to September.

**PARTS USED:** Leaves and flowering tops.

**VITAMINS:** C.



**TRADITIONAL USES:** Traditional use of Peppermint as a medicinal herb can be traced back almost to the beginnings of recorded history. It is best known as a digestive aid and treatment for colic, diarrhea, nausea, constipation, and cramps. It is also able to destroy many pathogens in the blood and digestive tract, including Influenza A, Herpes simplex, Streptococcus pyogenes, Staphylococcus aureus and Pseudomonas aeruginosa and Candida albicans. Peppermint has also been tested and used for its ability to increase concentration in some cases by its relaxing action. Some have found it effective for more severe disorders such as spasms and convulsions. It is also commonly used for chills, fever, rheumatism, heart trouble, and headaches. Peppermint may be taken as a tincture, oil, capsule or food.

**SELF-HELP USES:** Digestion, Diarrhea, Infections, Relaxant.

**COMPONENTS:** Acetic-acid, Azulene, Beta-thujone, Cadinene, Camphene, Carvacrol, Carvone, Cedrol, Chlorogenic-acid, Chromium, Coumarin, Germacrene-D, Isovaleric-acid, Lithospermic-acid, Luteolin, Menthol, Menthone, Phellandrene, Phenol, Phosphorus, Potassium, Pulegone, Tannic acid, Terpenes, Tin, Trans-Beta-Farnesene, Volatile oils.

## PLEURISY ROOT

*Asclepias tuberosa*

**HABITAT & DESCRIPTION:** Indigenous to North America and found in some areas of South America, pleurisy root flourishes in dry, sandy, and gravel soils. Its stems grow from one to two feet in height with hairy greenish stems which contain a milky fluid. The leaves are oval-shaped and pointed at both ends, while the flowers are bright orange and bloom during June and August.

**PARTS USED:** Roots.

**VITAMINS:** N/A

**TRADITIONAL USES:** Pleurisy root has



been used for hundreds of years and praised for its ability to act as an expectorant and opens breathing passages. It is successfully used to treat pleurisy, asthma, bronchitis, tuberculosis, pneumonia, colds and catarrhs. This herb is also used to reduce muscle tension and spasms, and to relieve gas and colic in the digestive tract. Pleurisy root may be found in capsule, powder or tincture form.

**SELF-HELP USES:** Lungs, Expectorant.

**COMPONENTS:** Alpha-Amyrin, Amino acids, Beta-sitosterol, Cinnamic-acid, Condurangin, Desglucouzarin, Glucose, Kaempferol, Linoleic acid, Nicotine, Oleic acid, Palmitic acid, Quercetin, Tannins, Uzarigenin.

**CAUTION:** Large doses may be cathartic and emetic. It is not recommended for children.

## POKE ROOT

*Phytolacca decandra*

**HABITAT & DESCRIPTION:** Poke root is abundant throughout the USA, Europe, and Africa. It flourishes in soil containing lime salts, along fences, by the borders of woods, in newly cleared fields, and especially in the muck thrown up from the ditches or swamps. Its flowers begin

to appear in July, and the fruit ripens in autumn.

**PARTS USED:** Dried root and berries.



**VITAMINS:** A, B, C, D, and E.

**TRADITIONAL USES:** Originally it was used by Native Americans to treat venereal disease. It has also been found to have excellent effects on inflammatory diseases of the respiratory tract and lymphatic system. It acts as a powerful stimulant to the lymphatic system and acts quickly to boost immunity. In Native American medicine Poke root is used as a de-wormer, applied as a poultice, it acts as an antiseptic and it kills many types of fungus. Poke root is also a very good anti-inflammatory for arthritic and autoimmune diseases which cause pain, swelling and inflammation. Poke root may be found in capsule, powder or tincture form.

**SELF-HELP USES:** Anti-inflammatory, Worms, Lymphatic system.

**COMPONENTS:** Americanin, Anthocyanin, Ascorbic acid, Astraglin, Beta-carotene, Calcium, Caryophyllene, Fructose, Glucose, Iron, Isoquercitrin, Jaligonic-acid, Niacin, Oleanolic acid, Phosphorus, Phytolaccatoxin, Riboflavin, Starch, Tannins, Thiamin.

**CAUTION:** Large doses may be cathartic and emetic. Use only under the guidance of a qualified health care practitioner. It is not recommended for children.

## POKEWEED

*Phytolacca Americana*

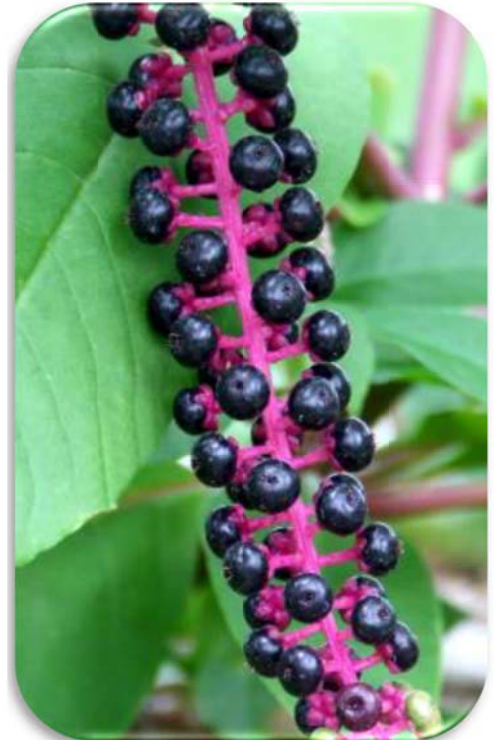
**HABITAT & DESCRIPTION:** Pokeweed is a common perennial found in North America, Europe, and other countries. It grows in damp rich soils in clearings, woodland margins, and roadsides. It is an easily grown plant, succeeding in most soils and full sun or partial shade. The stout erect stalk is tall, growing to ten feet or more, and turns deep red or purple as the berries ripen and the plant matures. Its leaves are about five inches long and three inches wide, and its fruit is a rich deep purple round berry, containing a rich crimson juice.

**PARTS USED:** Root and young shoots.

**VITAMINS:** A, C.

**TRADITIONAL USES:** Internally used, pokeweed is primarily an anti-inflammatory, being effective in the treatment of tonsillitis, mumps, laryngitis and rheumatism. Externally, it makes an excellent salve for the treatment of psoriasis, slow healing wounds, scabies and fungal infections. Pokeweed works well on diseases of the lymphatic system and seems to have a stimulating effect on the whole glandular system. Pokeweed may be taken in tincture or capsule form.

**SELF-HELP USES:** Wounds, Skin, Lymph system.



**COMPONENTS:** Americanin, Anthocyanin, Ascorbic acid, Astraglin, Beta-carotene, Calcium, Caryophyllene, Fructose, Glucose, Iron, Isoquercitrin, Jaligonic-acid, Niacin, Oleanolic acid, Phosphorus, Phytolaccatoxin, Riboflavin, Starch, Tannins, Thiamin.

## PSYLLIUM

*Plantago ovata*

**HABITAT & DESCRIPTION:** Psyllium is native to the Mediterranean region, Pakistan, and India. It is cultivated in the Northwestern region of India, which accounts for 60% of the world's production of psyllium, which grows to about eighteen inches. Its root system has a well developed tap root with few fibrous secondary roots. A large number of flowering shoots arise from the base of the plant; flowers are numerous, small, and white. The seeds are enclosed in capsules that open at maturity.

**PARTS USED:** Seeds.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used as



a stool softener, it cleans the intestines, and prevents constipation. It is used in the treatment of colitis, ulcers and hemorrhoids. The mucilage and aucubin in psyllium makes it an excellent laxative. Psyllium is usually taken in powder or capsule form or in combinations with other herbs for its laxative and stool softening effects.

**SELF-HELP USES:** Laxative, Stool softener.

**COMPONENTS:** Ascorbic acid, Aucubin, Beta-carotene, Beta-sitosterol, Buteric acid, Calcium, Chromium, Cobalt, Enzymes, Ethandioic acid, Fats, Fatty oil, Glycosides, Iron, Linoleic acid, Magnesium, Manganese, Mucilage, Mucins, Niacin, Oleic acid, Oxalic acid, Palmitic acid, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Stigmasterol, Tannins, Thiamin, Tin, Zinc.



## PUMPKIN

*Cucurbita pepo*

**HABITAT & DESCRIPTION:** Native of tropical Africa and also found in North America and South Asia. It is an annual plant that prefers rich soil. The pumpkin plant has green, hairy, creeping stem that grows one to three inches in length. It has large green leaves with prominent veins. Large yellow flowers grow from the leaf axils, and the fruit is the large, round, orange



pumpkin.

**PARTS USED:** Seeds and husks.

**VITAMINS:** F.

**TRADITIONAL USES:** For hundreds of years the seeds of the pumpkin have been used as a diuretic, and as an anthelmintic (a substance which kills and expels worms) to reduce an enlarged prostate. The flesh of the pumpkin has been used in the treatment of digestive disorders, morning sickness and nausea. Pumpkin may be found in powder, tincture, capsule or fresh.

**SELF-HELP USES:** Diuretic, Worms, Morning sickness.

**COMPONENTS:** Adenosine, Alanine, Ascorbic-acid, Arginine, Aspartic-acid, Chromium, Ferulic-acid, Glutamic-acid, Glycine, Histidine, Kaempferol, Myristic-acid, Oxalic-acid, Phenylalanine, Phosphorus, Potassium, Selenium, Serine, Silicon, Tin.

## RED CLOVER

*Trifolium pretense*

**HABITAT & DESCRIPTION:** Red clover is a perennial herb that grows commonly in the wild throughout Europe, Asia and Africa and has been naturalised to North America. It is used as a grazing food for cattle and as a green manure as is a nitrogen-rich crop. It can grow between one and two feet and has purple-pink tubular flowers.

**PARTS USED:** Flowers.

**VITAMINS:** A, B1, B2, B3, B5, B6, B9, B12, C, P, and zinc.

**TRADITIONAL USES:** This herb has been used in the United States for well over a hundred years to treat and cure cancer. To date this belief has largely been anecdotal, however when the phytochemical constituents are seen, the reputation probably has some validity. Red clovers constituents contain a large number of immune system enhancers as well as cancer fighting agents and cancer preventatives. Red clover is recommended for autoimmune diseases, chronic fatigue and AIDS. Testing has shown red clover to be an effective antibiotic for many bacteria including the bacteria that causes tuberculosis. For this reason it is a highly recommended supplement. Red clover also acts as an appetite suppressant, blood purifier, and relaxant. It is commonly used in the treatment of skin problems, whooping cough, inflamed lungs, other inflammatory conditions related to gout and arthritis and for AIDS. Red clover combined with Chaparral is said to enhance its cancer fighting abilities. Red clover is usually taken as a tincture, tea or in capsule form.



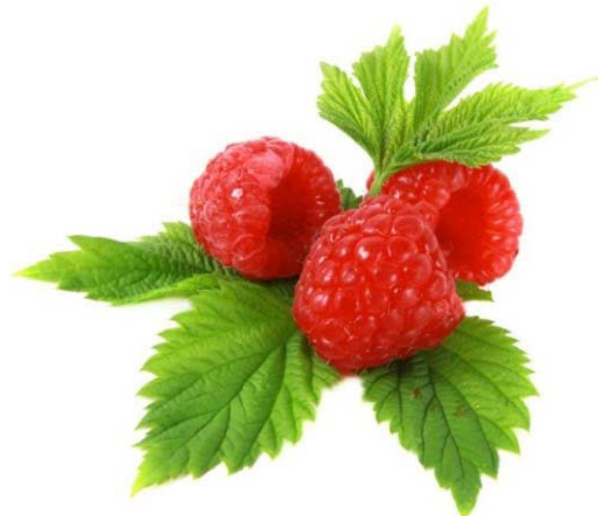
**SELF-HELP USES:** Cancer, Anti-inflammatory, Antibiotic.

**COMPONENTS:** Ascorbic-acid, Biotin, Chlorogenic-acid, Choline, Chromium, Copper, Coumarin, Cyanindin, Daidzein, Delphinidin, Formononetin, Glycosides, Inositol, Isorhamnetin, Magnesium, Manganese, Molybdenum, Phosphorus, Potassium, Selenium.

**COMMENT:** When taken with chaparral it has positive effects on cancer patients.

## RED RASPBERRY LEAVES

*Rubus idaeus*



**HABITAT & DESCRIPTION:** Red raspberry is indigenous to Europe and Asia and is cultivated in temperate climates. The bush can grow to six feet high with erect, woody stems, which are densely covered in tough thorns. The white flowers produce a red aggregate fruit.

**PARTS USED:** Bark, leaves and roots.

**VITAMINS:** C and D.

**TRADITIONAL USES:** Used primarily for female disorders including hot flashes, menstrual cramps, excessive menstrual bleeding, morning sickness, and for uterine irritability to reduce the chance of miscarriage. It strengthens the uterine wall, and relaxes uterine spasms. Red raspberry is very effective in stopping intestinal spasms, calming the symptoms of an irritable colon and bowels, as well as stopping diarrhea. It acts as a diuretic and flushes the genito-urinary tract at the same time it acts as an antiseptic when taken for urinary tract infections. For diabetics it may be of use because of its properties of reducing blood glucose levels and being insulin sparing. It is also used to heal canker sores, make healthy nails, bones, teeth and skin. It may be found in capsule, tincture or powder form.

**SELF-HELP USES:** Menses, Diuretic, Diabetes, Diarrhea.

**COMPONENTS:** Ascorbic-acid, Beta-carotene, Caprylic-acid, Calcium, Citric acid, Chromium, Cobalt, Cyanin, Ellagic acid, Ethanol, Furfural, Gallic acid, Iron, Magnesium, Manganese, Niacin, Pectin, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Tannins, Thiamin, Valerianic acid, Zinc.

root division in spring or autumn and requires sun and well-drained soil. The rhizomes of plants are dug up in the autumn after the stem and leaves have turned yellow.

**PARTS USED:** Roots and rhizomes.

**VITAMINS:** N/A

**TRADITIONAL USES:** Rhubarb has been actively cultivated since the earliest history of China and Tibet. It was also one of the first cultivated plants by the early colonists, who brought it from Europe, where it was the standard prescribed laxative. Today it is still one of the most gentle and safe laxatives in the herb kingdom. It normally takes about six to ten hours from ingestion to bowel movement, but there are normally no cramps or other discomfort. It is gentle enough to use on children as long as it isn't overdone. It also acts as a stool softener and tends to heal the G.I. tract mucosa. It has antibiotic properties which are effective in treating disorders of the colon, and it facilitates healing of duodenal ulcers. Traditionally it is also used as a tonic to the liver and spleen, relieve diarrhea, constipation, headaches, hemorrhoids, eliminate worms, and aid in gallbladder function. Rhubarb is generally eaten fresh, but may be found in capsule or powder form.

**SELF-HELP USES:** Laxative, Ulcers, Worms.

**COMPONENTS:** Aloe-emodin, Ascorbic-acid, Chrysophanol, Cinnamic-acid, Emodin, Flavone, Gallic acid, Hyperin, Isoquercitrin, Molybdenum, Pectin, Potassium, Protocatechuic-acid, Phytosterol, Rutin, Starch, Tannins.

orange, but may also be dark purple to black in some species.

**PARTS USED:** Fruits.

**VITAMINS:** A, B<sub>3</sub>, C, D, E, P, and Zinc.

**TRADITIONAL USES:** Used to fight mild infections, it exhibits pro-biotic and antiviral capabilities. It is also an excellent astringent for stomach, bowel and bladder problems. It is used in China to treat urinary tract infections, menstrual irregularities and as a mild sedative. Rose hips are usually taken as a tea, tincture or capsule.

**SELF-HELP USES:** Infections of the G.I. tract, Antibiotic, Menses.

**COMPONENTS:** Acetic acid, Alpha-pinene, Arsenic, Ascorbic-acid, Astraglin, Beta-carotene, Beta-pinene, Beta-sitosterol, Calcium, Carvone, Camphene, Chlorine, Chlorogenic acid, Chromium, Citric acid, Cobalt, Copper, Cyanin, D-catechin, Epicatechin, Ethanol, Flavonoids, Fructose, Gallic acid, Germacrene-D, Glucose, Inositol, Iron, Isoquercitrin, Kaempferol, Lecithin, Limonene, Linalool, Linoleic acid, Lycopene, Magnesium, Malic acid, Manganese, Molybdenum, Myrcene, Niacin, Nickel, Oleic acid, Palmitic acid, Pectin, Phosphorus, Potassium, Quercetin, Riboflavin, Rutin, Selenium, Silicon, Sodium, Sucrose, Sulfur, Tannins, Tartaric acid, Thiamin, Tin, Zinc.

## SAGE

*Salvia officinalis*

**HABITAT & DESCRIPTION:** Sage is found in its natural wild condition from Spain along the Mediterranean coast up to and including the east side of the Adriatic. Sage generally grows about a foot or more high, with wiry stems. The leaves are set in pairs on the stem and are one to two inches long and greyish-green in color. The flowers are purple and blossom in August.

## RHUBARB ROOT

*Rheum palmatum*



**HABITAT & DESCRIPTION:** Native to China and Tibet (where the best quality rhubarb is still found), rhubarb now also grows in the West. Rhubarb is found in the wild and is widely cultivated. It is grown from seed in spring or by

## ROSE HIPS

*Rosa species*



**HABITAT & DESCRIPTION:** Rose cultivation took off in Europe in the 1800's with the introduction of roses from China that had an amazing ability to bloom repeatedly throughout the summer and into late autumn. Rose bushes have become one of the most popular garden shrubs bearing flowers in a variety of colors. Currently, there are thousands of rose varieties and hybrids that have been developed for their bloom shape and color, size, fragrance, and some even for their lack of thorns. Rose hips are the berry-like fruits of the rose bush left behind after the bloom has died. They are typically red or





**PARTS USED:** Leaves, herb.

**VITAMINS:** N/A

**TRADITIONAL USES:** Sage is probably best known in the United States as a smoke smudge used by many Native American tribes. Its smoke is believed to purify the area around it on both the physical and spiritual level. It has also been used by the Native Americans in some smoking mixtures to relieve mucous congestion in the lungs and to treat other lung ailments. In these smoking mixtures Sage was often mixed with Comfrey and Mullein. Sage was also chewed for all types of lesions and sores in the mouth. Its astringent properties seemed to soothe sores and make them heal quickly. Externally, these same astringent properties were of value on sores and wounds to the skin. Sage is often applied to skin sores and wounds after the leaves have been crushed to release their oils. Externally, sage is an excellent hemostat and stops bleeding very quickly. Sage is also taken internally to reduce excessive mucous discharge, treat nasal catarrh, and aid digestion. Both the Chinese and the Native Americans used Sage to help alleviate menstrual problems. The Chinese use Sage to treat pain, hives, hepatitis and insomnia. It may be used as the whole plant, smoked (not recommended) capsule or powder.

**SELF-HELP USES:** Antiseptic, Smudge, Mouth.

**COMPONENTS:** Amide, Alpha-Amyrin, Apigenin, Ascorbic-acid, Asparagine, Beta-carotene, Beta-sitosterol, Beta-thujone, Betulin, Calcium, Camphene, Camphor, Caryophyllene, Chlorogenic-acid, Chromium, Cobalt, Copper, Fats, Genkwanin, Iron, Magnesium, Manganese, Niacin, Oleanolic acid, Phellandrene, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Stigmasterol, Thiamin, Tin, Vanillic-acid, Zinc.

## SARSAPARILLA ROOT

*Smilax sarsaparilla*



**HABITAT & DESCRIPTION:** A native of the southern USA, sarsaparilla root now grows globally, typically in swampy woods and thickets. It has a stout stem with a few hooked prickles, elliptical leaves, and produces yellowish-white flowers which appear from May to August, giving rise to small thin umbels of three or four red or black berries. **PARTS USED:** Roots.

**VITAMINS:** A, D, and Zinc.

**TRADITIONAL USES:** Native Americans used sarsaparilla root to treat gout, arthritis, and digestive disorders. It was also used to treat venereal diseases and other problems with the reproductive system. Sarsaparilla's reputation for the treatment of venereal disease was wide spread. It was used to treat syphilis and herpes in England, Europe and the United States. In its region of origin, South America, it was also used to treat venereal disease and impotence. When the cowboys bellied up to the bar and ordered a sarsaparilla it was for more than one reason, and neither reason had anything to do with the refreshing drink it makes. Sarsaparilla has gained a reputation as a mild tranquilizer and has been effective with some forms of epilepsy and other nervous system disorders. It is also a wonderful and good tasting tonic for the digestive tract. For hundreds of years it has been used to treat colic, ulcerative colitis and gas. It also seems to make digestion and utilization of food easier on the system. It is used to reduce fevers, clear psoriasis and eczema, control diabetes, treat kidney disorders, regulate hormones, increase energy and protect against harmful radiation. It has been historically used as a "blood purifier" and tonic for health conditions associated with endotoxin levels. Some use it for high blood pressure and/or as a diuretic for congestive heart failure to combat fluid accumulation. Sarsaparilla is usually taken as a tea, tincture or capsule.

**SELF-HELP USES:** Ulcers, Colic, Hypertension, Urinary & Reproductive system infections.

**COMPONENTS:** Beta-sitosterol, Calcium, Chromium, Copper, Essential oils, Fats, Fatty oil, Glycosides, Glucose, Magnesium, Manganese, Oleic acid, Phosphorus, Potassium, Resin, Rutin, Saponins, Selenium, Silicon, Sitosterol, Sodium, Starch, Stigmasterol, Sugar, Sulfur, Tannins, Tin, Zinc.

**CAUTION:** If used frequently, be sure to eat foods high in potassium such as bananas, potatoes, and fresh vegetables. If it causes minor discomfort (such as burning in the mouth or upset stomach), use less or stop using it.

## SAW PALMETTO BERRY

*Serenoa repens*

**HABITAT & DESCRIPTION:** Saw Palmetto is a dwarf palm tree or dwarf shrub which is indigenous to the southeastern United States and the islands of the West Indies. Typically found in swampy areas and

along the Atlantic coast of the United States, it can also be found in Europe along the Mediterranean coastline.



**PARTS USED:** Berries.

**VITAMINS:** N/A

**TRADITIONAL USES:** Traditionally used for hundreds of years on all types of diseases and conditions of the genital-reproductive system. For males it is used around the world as the number one herb for prostate problems. It has been tested against many prescription products on the market, and has been superior to most. For females it has been used extensively in increasing mammary gland size and production, relieving dysmenorrhea, ovarian dysfunction and uterine irritability. Many of the benefits seen in Saw palmetto berry are due its actions on the glandular system rather than individual actions on several different systems. It has been found to be beneficial in thyroid dysfunction, diabetes, increasing fertility and sex drive, and to act as a mild relaxant. These effects are most likely due to the restorative and stimulating effects that Saw palmetto has on the entire glandular system. Saw palmetto berry may be taken as a daily supplement by both men and woman. It is an excellent edition to aid in the prevention of many diseases of the genital-urinary tract as well as to help keep your glandular system healthy. Saw palmetto berry is usually taken in capsule or tincture form.



**SELF-HELP USES:** Prostate, Genital-urinary system, Diabetes, Reproductive System, Anti-inflammatory, Expectorant.

**COMPONENTS:** Arabinose, Beta-carotene, Beta-sitosterol, Caprylic-acid, Fats, Ferulic-acid, Myristic-acid, Oleic acid, Palmitic acid, Vanillic-acid.

## SKULLCAP

*Scutellaria lateriflora*

**HABITAT & DESCRIPTION:** Skullcap is a perennial herb native to North America which grows in rich woods, thickets, bluffs and along roadsides in wet ditches. It prefers a moist shady environment. The stems grow between one and two feet high, and the flowers are blue to lavender.

**PARTS USED:** Aerial parts.

**VITAMINS:** E.

**TRADITIONAL USES:** Skullcap has been used for hundreds of years by the Native Americans as a nervine. It is an excellent herb for those suffering from anxiety, skeletal muscle spasms and insomnia. It is used for more serious disorders such as hysteria, migraine headaches, epilepsy, and convulsions. It is also used to aid in drug withdrawal symptoms. This herb is often used to treat rheumatism, due to its ability to act as a mild anti-inflammatory and relax the muscle around the painful joints. Skullcap has also been found to lower blood pressure and is believed to strengthen the heart muscle. It is used for calming the gastro intestinal tract for problems such as irritable bowel syndrome, gallbladder and small intestine problems and for some symptoms of ulcers. For a stronger sedative effect or to treat severe muscular spasms, Skullcap may be combined with other herbs such as Chamomile, Passion flower or Valerian. The Chinese use it to treat headaches, PMS, drug withdrawal, and muscular spasms. Skullcap is generally taken as a tea or in tincture form.



**SELF-HELP USES:** Sedative, Analgesic, Spasms, Relaxant, Hypotension.

**COMPONENTS:** Ascorbic-acid, Beta-carotene, Calcium, Chromium, Cobalt, Fat, Fatty oil, Glycoside, Iron, Lignin, Magnesium, Manganese, N-Hentriacontane, Niacin, Phosphorus, Potassium, Protein, Resin, Riboflavin, Selenium, Silicon, Sodium, Sugar, Tannins, Thiamin, Tin, Volatile oil, Wax, Zinc.

**CAUTION:** Much of what is sold in this country is germander (*Teucrium*). Be sure to ask for the genuine herb.

## SIBERIAN GINSENG

*Eleutherococcus*



**HABITAT & DESCRIPTION:** Native to the Taiga region of the Far East, Siberian ginseng is a shrub that grows three to ten feet high. Its leaves are attached to a main stem by long branches. Both the branches and the stem are covered with thorns. Flowers, yellow or violet, grow in umbrella-shaped clusters, and turn into round, black berries in late summer.

**PARTS USED:** Root.

**VITAMINS:** A.

**TRADITIONAL USES:** Valued for hundreds of years for its ability to increase endurance, reduce the effects of aging and aid in recovery from debilitating illness, Siberian ginseng has been an integral part of many herbal combinations throughout the world. Siberian ginseng has also earned a reputation as an aphrodisiac, but this is probably due to its rejuvenative effects on the glandular system, its anti anxiety properties and its ability to reduce the effects of stress and work. In controlled research, it has been found that daily intake of this herb reduces the body's oxygen requirement for the same work load by 5%. Siberian ginseng is also used to reduce edema in the legs and promote circulation, act as both stimulant and relaxant to the central nervous system, lowers blood glucose levels, and helps the body adapt to stress. Because of its ability to stabilize blood glucose levels, it is of value to diabetics. Because of its ability to enhance recovery from illness, it should be considered as a daily supplement for those suffering from a debilitating disease, those with autoimmune system disease, or those suffering from an impaired immune response. Ginseng is found in tincture, capsule or powdered form, or may be made into a tea.

**SELF-HELP USES:** Immunity, Endurance, Diabetes, Anti-aging, Aphrodisiac.

**COMPONENTS:** Beta-carotene, Beta-sitosterol, Caffeic-acid, Copper, Coumarins, Essential oils, Glycosides, Isofraxidin, Oleanolic acid, Pectin, Resin, Starch, Sterols, Sucrose, Wax.

## SLIPPERY ELM

*Ulmus fulva*

**HABITAT & DESCRIPTION:** A perennial tree throughout North America, slippery elm flourishes in high open places and in firm, dry soil. It grows from fifty to one hundred feet high, and has greyish-brown, deeply furrowed bark. Small flowers grow in axillary clusters during March and April.

**PARTS USED:** Inner bark.

**VITAMINS:** K and P.

**TRADITIONAL USES:** Used for hundreds of years by Native Americans to treat inflamed mucous membranes of the digestive tract and lungs. It is an excellent expectorant and when combined with its unusually high mucilage content it is of great benefit to asthma, bronchitis and other lung diseases. Slippery elm bark is also a wonderful and effective cough suppressant. It is good for diarrhea and inflamed mucous membranes of the urinary tract, bowels, and stomach. When mixed into a soft gruel it is able to be digested by the infirm and children, and acts to soothe the digestive tract while settling the stomach. Native American also used it for easing the pain of childbirth and labor, diarrhea, leprosy, ulcers, rheumatism and food. Externally it may be used to treat sores and wounds to the skin and as an eye lotion or wash when made into a tea. Internally it is normally taken as a tincture, tea or capsule.



**SELF-HELP USES:** Lungs, Gastro-urinary tract.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Fats, Fructose, Glucose, Iron, Magnesium, Manganese, Mucilage, Niacin, Phosphorus, Polysaccharides, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Starch, Tannins, Thiamin, Tin, Zinc.



## ST. JOHN'S WORT

*Hypericum perforatum*

**HABITAT & DESCRIPTION:** St. John's Wort is a perennial herb native to North America. Found growing in open sunny or partial shady areas and along roadsides in dry, gravelly soils, it grows to a height of one to three feet. Five petaled yellow flowers grow atop each stem and bloom from June to September.

**PARTS USED:** The herb.

**VITAMINS:** N/A



**TRADITIONAL USES:** Used for centuries as a mild sedative and anti-anxiety herb. It is most commonly used to treat depression and the anxiety producing results of chronic pain. St. John's Wort also has antispasmodic and anti-inflammatory properties which make it valuable in treating long-term inflammations such as sciatica and rheumatism. Externally it is a very good astringent and may be used for severe wounds and lacerations. It has even been used to treat severe burns and infections. St. John's Wort is also an excellent anti-viral and shows promise for treating viral infections including HIV and AIDS. It has a reputation as a hemostat which controls both internal and external bleeding. For the lungs, St. John's Wort is used as an expectorant to help remove phlegm from the airways. St. John's Wort is generally taken as a tincture, tea or in capsule form.

**SELF-HELP USES:** AIDS, Antiviral, Antiseptic, Sedative.

**COMPONENTS:** Ascorbic-acid, Cadinene, Caryophyllene, Choline, Hyperin, Hyperoside, Isoquercitrin, Limonene, Myrcene, Myristic-acid, Palmitic acid, Pectin, Phenol, Quercetin, Rutin, Tannins.

## SUMA

*Pfaffia Paniculata*

**HABITAT & DESCRIPTION:** Suma is a large, shrubby ground vine that has an intricate and deep root system. The root resembles ginseng, hence it is sometimes called "Brazilian ginseng." Suma grows in the Amazon Basin, more specifically in the tropical parts of Brazil, Ecuador, Panama, Paraguay, and Peru. It is also endemic to Venezuela.

**PARTS USED:** Bark, leaves, berries, and roots.

**VITAMINS:** N/A



**TRADITIONAL USES:** Suma is found in the rain forests of Brazil. It is considered the herb for all ills by the natives and does have excellent adaptogenic characteristics (the ability to provide to the body the actions that are required). At this time the greatest enthusiasm is coming from research around its ability to kill certain types of cancer and tumor cells. At this writing there is a great deal of research being done on cancer and Suma's ability to increase resistance to many types of viruses. Recent research done in Japan has found Suma to be effective in the treatment of anemia, diabetes, bronchitis, stress, fatigue and impotence. It contains many precursors and support chemicals for the reproductive system and certainly may be beneficial in restoring normal hormonal levels and sexuality. Externally it is used as an astringent and to promote new tissue growth in wounds. It may be found in capsules, powder, tablet and tincture.

**SELF-HELP USES:** Immune system enhancer, Cancer, Impotence, Diabetes, Fatigue.

**COMPONENTS:** Albumin, Andrographolide, Germanium, Galactose, Malic acid, Pfaffic acid, Mucilage, Protein, Rutin, Tannins, Umbelliferone, Volatile oils.

**COMMENT:** In Brazil Suma was reported to be more powerful than ginseng, and it is referred to as Brazilian Ginseng. Research in Japan found that the Suma root contains pfaffic acid, which is capable of inhibiting certain types of cancerous cells. Dr. Takemoto was the first to study Suma in Japan. Suma may be taken in capsule, tincture or tea form.

## THYME

*Thymus vulgaris*



**HABITAT & DESCRIPTION:** Native to the Mediterranean region and widely cultivated in Europe and the USA, thyme prefers limy, sandy, and well-drained soil with sufficient sunlight. A perennial plant with numerous stems close to one foot high, its grey-green leaves are small and its small blue-purple flowers bloom from May to September.

**PARTS USED:** Berries, fruits, leaves, and flowers.

**VITAMINS:** B- complex, C, and D.

**TRADITIONAL USES:** One of the more useful cooking herbs, it is known to be an exceptional herbal disinfectant. It can be crushed and applied to cuts, wounds, boils and warts. It also is an effective fungicide for athlete's foot. Taken internally it acts as an expectorant for lung congestion and chronic respiratory disorders. It also reduces muscle tension and spasm, and is used for headaches. It is said to lower blood cholesterol levels and settle stomach indigestion as well as relieve gas. Thyme may be used as a spice or taken as a tincture or in capsule form.

**SELF-HELP USES:** Astringent, Antifungal, Wormer, Expectorant.

**COMPONENTS:** Acetic acid, Alanine, Alpha-pinene, Anethole, Apigenin, Ascorbic-acid, Beta-carotene, Beta-pinene, Borneol, Caffeic-acid, Calcium, Camphene, Camphor, Caprylic-acid, Carvacrol, Carvone, Caryophyllene, Chlorogenic-acid, Chromium, 1,8-Cineole, Cinnamic-acid, Cobalt, Copper, Cystine, Essential oils, Fenchone, Ferulic-acid, Fluorine, Gallic acid, Geraniol, Germacrene-D, Glycine, Gum, Iron, Isovaleric-acid, Kaempferol, Leucine, Limonene, Linalool, Linoleic acid, Lithospermic-acid, Luteolin, Magnesium, Manganese, Menthone, Myrcene, Myristic-acid, Niacin, Oleanolic-acid, Oleic acid, Palmitic acid, Phellandrene, Phenylalanine, Phosphorus, Potassium, Riboflavin, Selenium, Silicon, Sodium, Tannins, Thiamin, Thyme oil, Thymol, Tin, Tryptophan, Ursolic acid, Vanillic-acid, Zinc.

## TIENCHI

*Panax Pseudoginseng*

**HABITAT & DESCRIPTION:** In Latin, the word panax means "cure-all" and the family of ginseng plants is one of the most well known herbs. Tienchi is an Asian herb used primarily in Korea, China, and Japan. It is a perennial with dark green leaves branching from a stem with a red cluster of berries in the middle. It is both cultivated and gathered from wild forests, with wild plants being the most valuable. The Chinese refer to it as "three-seven root" because the plant has three branches with seven leaves each.

**PARTS USED:** Root.

**VITAMINS:** N/A



**TRADITIONAL USES:** Primarily used to stop bleeding and blood in the nose, urine, stool and stomach. It is useful for traumas, injuries, cuts, wounds, reduces swelling, and alleviates pain. Though it is hemostatic to wounds (stops bleeding) it is also known for dissolving internal blood clots which may cause thrombosis or stroke. For wounds, the powder is poured directly into the open cut or tear. For internal use it may be taken as a tea or in capsule form.

**SELF-HELP USES:** Bleeding, Blood clots, Wounds.

**COMPONENTS:** Arasopanol A and B, Ascorbic-acid, Beta-carotene, Beta-sitosterol, Biotin, Calcium, Choline, Chromium, Citric acid, Cobalt, Copper, Fats, Ginsenoside-RB-2, Magnesium, Malic acid, Manganese, Niacin, Oleanolic-acid, Pantothenic acid, Pectin, Phosphorus, Potassium, Protein, Riboflavin, Selenium, Silicon, Sodium, Sucrose, Tartaric acid, Thiamin, Tin, Zinc.

## TURMERIC

*Curcuma longa*

**HABITAT & DESCRIPTION:** Turmeric (*Curcuma longa*), is a small perennial herb native to India bearing many rhizomes on its root system which are the source of its medicinal properties. A member of the ginger family, it is a traditional Indian curry spice. It is also used as a yellow food coloring and has been used in traditional medicine in India and Ancient Egypt for at least 6,000 years.

**PARTS USED:** Root/rhizome.

**VITAMINS:** C.

**TRADITIONAL USES:** Turmeric has been used for peptic, gastric and duodenal ulcers as well as irritable bowel syndrome (IBS). It is helpful in the treatment of several different forms of cancer (colon, duodenal, leukemia, mouth, stomach, pancreatic). A Phase II clinical trial conducted at MD Anderson Cancer Center found that turmeric was equal to or better than all currently available FDA approved drugs for pancreatic cancer, except that it does not cause the same negative side effects. When combined

with other powerful nutrients like fish oil, olive oil, and/or black pepper, turmeric's anti-cancer effects are even further amplified, as the spice is not very well absorbed by the body on its own. Turmeric can also protect cells against xenoestrogens because it can fit to the same receptor as estrogen or estrogen-mimicking chemicals. In a study on human breast cancer cells, turmeric reversed growth caused by a certain form of estrogen by 98% and growth caused by DDT by 75%. Concerning Alzheimer's disease, turmeric inhibits formation of, and breaks down, Amyloid-beta oligomers (entwined fibres) and aggregates (lumps). In other words, it keeps the brain neuron synapses free of plaque and keeps the brain functioning normally.



**SELF-HELP USES:** Obesity, Cancer, Liver, Pain, Inflammation.

**COMPONENTS:** 1,8-Cineole, 2-Hydroxy-Methyl-Anthraquinone, Alpha-Pinene, Ace-Inhibitor, Ascorbic-Acid, Beta-Carotene, Beta-Pinene, Borneol, Boron, Caffeic-Acid, Caprylic-Acid, Caryophyllene, Chromium, Cinnamic-Acid, Cobalt, Copper, Coumaric-Acid, Curcumenone, Curcumenol, Curcumin, Curdione, D-Camphor, Dihydrocurcumin, Eugenol, Fat, Fiber, Fructose, Gamma-Atlantone, Glucose, Guaiacol, Iron, Isoborneol, Limonene, Linalol, Manganese, Monodesmethoxycurcumin, Niacin, Nickel, P-Cymene, Phosphorus, Potassium, Protein, Protocatechuic-Acid, Resin, Riboflavin, Sodium, Syringic-Acid, Terpinene Essential Oil, Terpineol, Thiamin, Turmerone, Vanillic-Acid, Zinc, Zingiberene.

## UVA URSI

*Arctostaphylos uva-ursi*



**HABITAT & DESCRIPTION:** Uva ursi is widespread in northern latitudes, confined to high altitudes further south, growing from Europe to Asia to North America. It is a small woody shrub from two inches to one foot high. Its leaves are evergreen and the fruit is a red berry.

**PARTS USED:** Leaves.

**VITAMINS:** N/A

**TRADITIONAL USES:** Uva Ursi has been known and successfully used for all types of urinary tract infections and disorders. This action is caused by the high concentration of arbutin which is a known antiseptic, which yields hydroquinone when it passes through the urinary tract. Hydroquinone is a very effective urinary tract disinfectant. A side effect is that hydroquinone may turn the urine red or brown, but that is harmless. It is used to treat bladder and kidney infections and kidney stones as well as infections of the prostate gland. It also acts as a diuretic to increase urine flow and facilitate cleansing. It is a very effective uterine tonic that has been used in Europe and by the Native Americans to shrink the uterus after birth to help prevent postpartum hemorrhage and infection. It has a reputation for strengthening the heart muscle and being hypotensive, probably due in part to its diuretic qualities. It may be found in powder, capsule or tincture form.

**SELF-HELP USES:** Urinary tract, Uterus, Diuretic.

**COMPONENTS:** Alpha-amyrin, Arbutin, Ascorbic-acid, Beta-carotene, Beta-sitosterol, Calcium, Chromium, Citric acid, Cobalt, Ellagic acid, Fats, Formic acid, Gallic acid, Hydroquinone, Hyperin, Iron, Isoquercitrin, Magnesium, Malic acid, Manganese, Myricetin, Niacin, Oleanolic-acid, Phosphorus, Potassium, Protein, Quercetin, Quinic-acid, Riboflavin, Selenium, Silicon, Sodium, Tannins, Thiamine, Tin, Ursolic acid, Ursone, Volatile oils, Zinc.

**CAUTION:** Should not be taken when pregnant.

## VALERIAN ROOT

*Valeriana officinalis*



**HABITAT & DESCRIPTION:** Found in Europe and Asia, preferring damp places and swamps, valerian root is a perennial plant with a hollow pale-green stem. Valerian grows from two to four feet in height and contains lanceolate leaves. Small, white or pink flowers grow in terminal clusters from June to August.



**PARTS USED:** Roots and rhizomes.

**VITAMINS:** N/A

**TRADITIONAL USES:** Used since pre-Christian times as a sedative, Valerian root appears in virtually every pharmaceutical text in the world. It is used in the treatment of anxiety, muscular spasms, convulsions, stress headaches and migraines. It seems strange that so much Valium is prescribed when there is a safe and effective herb available. Unlike other sedatives, Valerian root leaves one feeling refreshed, not lethargic. Valerian root has also been effective in the treatment of digestive disorders such as colic, ulcers and gas and for treating tachycardia, especially at night before sleep. Due to its chemical constituents, it would also be an effective herb when treating cancer. It has many anti-tumoral and anti-cancer phytochemicals, and its activity as an anti-anxiety herb may be of great value in keeping a positive attitude. Valerian may be taken as a tea, tincture or in capsule form.

**SELF-HELP USES:** Sedative, Stomach, Cancer.

**COMPONENTS:** Acetic acid, Alpha-curcumen, Ascorbic-acid, Azulene, Beta-pinene, Beta-sitosterol, Borneol, Butyric acid, Calcium, Camphene, Caryophyllene, Chlorogenic-acid, Choline, Chromium, Cobalt, Fats, Formic acid, Fructose, Glycosides, Gum, Iron, Isovaleric-acid, Kaempferol, Limonene, Magnesium, Manganese, Niacin, Phosphorus, Potassium, Protein, Pinene, Resin, Riboflavin, Selenium, Silicon, Sodium, Thiamin, Tin, Valpotriates, Valerenic-acid, Valerenone, Valtrate, Volatile oils, Zinc.

**CAUTION:** Valerian root should only be used for short periods of time.

## WITCH HAZEL

*Hamamelis virginiana*

**HABITAT & DESCRIPTION:** Witch hazel is a large shrub found extensively throughout the USA and Canada. It is a woody plant with branches six to eight inches in diameter with a smooth, even bark. It can grow twenty to thirty feet tall and is occasionally referred to as both a large shrub and a small tree. Its leaves are oval shaped, three to five inches long and one to two inches wide (at maturity) and its autumn flowers are typically bright yellow, complete, and are potentially self-pollinating.

**PARTS USED:** Bark.

**VITAMINS:** N/A



**TRADITIONAL USES:** Used for hundreds of years by Native Americans as a hemostat to stop the bleeding of wounds, cuts and scratches, as

well as to stop the internal bleeding from ulcers, trauma and lungs. It also found great favor in its ability to treat the whole venal system. It is taken internally to treat varicose veins, vaginitis prolapses, hemorrhoids and other conditions of the uterus, cervix and vagina. It is also effective in treating vaginal yeast infections. Part of its success in these treatments is this herb's wide spectrum antibiotic and antifungal activity. When combined with wide range antibiotic activity and a proven ability to affect the entire venal system, its value is easily seen. Witch hazel may be used as a tincture or rubbing solution.

**SELF-HELP USES:** Hemostat, Astringent, Hemorrhoids, Uterus, Cervix, Vagina.

**COMPONENTS:** Astraglin, Choline, Gallic acid, Isoquercitrin, Kaempferol, Myricetin, Phenol, Quercetin, Quinic-acid, Saffrole, Saponins, Spiraeoside, Tannins.

## WHEATGRASS

*Triticum aestivum*



**HABITAT & DESCRIPTION:** Triticum aestivum (common wheat plant) is a result of centuries of the cultivation of agropyrons, perennial wild grasses of temperate and cool regions. Its absolute place of origin is obscured, but was likely within the Fertile Crescent, the Tigris-Euphrates basin. Wheatgrass is the young version of Triticum aestivum. Wheatgrass can be considered the ultimate "natural medicine" plant and has been called "nature's finest alternative medicine." Hippocrates mentioned wheatgrass as a medicinal herb. Dried wheatgrass contains 47% protein (three times that of beef).

**PARTS USED:** Leaves.

**VITAMINS:** A, B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>12</sub>, C, E, K.

**TRADITIONAL USES:** Wheatgrass has been used for thousands of years to improve energy levels, strengthen the immune system and slow the development of various types of cancer. It is useful in treating colitis and other bowel conditions. Wheatgrass detoxifies and cleanses the large intestine and liver, and is beneficial to blood, and is used to treat blood disorders including anemia. Wheatgrass contains chlorophyll, which increases hemoglobin production. Selenium and laetrile are also in wheatgrass, and both are anticancer. Chlorophyll and selenium also help build the immune system. Chlorophyll also benefits heart function, the

vascular system, the uterus, intestines, and lungs. Wheatgrass is of benefit to those exhibiting signs of retinal disturbances and to those with early-phase macular degeneration.

**SELF-HELP USES:** (Wheatgrass Juice) Bronchitis, Coughs, Digestion, Kidneys, Allergies, Cancer, Liver.

**COMPONENTS:** Amino Acids (Alanine, Amylase, Aspartic Acid, Cysteine, Cytochrome oxidase, Isoleucine, L-Arginine, L-Lysine, Leucine, Lipase, Methionine, Phenylalanine, Proline, Protease, Transhydrogenase, Threonine, Tyrosine, Valine), Beta-Carotene, Calcium, Chlorophyll, Dietary Fiber, Magnesium, Phosphorus, Potassium, Protein, Selenium, Sodium, Superoxide Dismutase (SOD), Trace minerals, Zinc.

## WORMWOOD

*Artemisia absinthium*



**HABITAT & DESCRIPTION:** Native to Europe, but found throughout the world, wormwood grows along roadsides and in waste places. It has a woody root which produces numerous bushy stems covered with white hairs. The stem grows from two to four feet high. The leaves are gray-green and alternate, with long, obtuse lobes. The flowers are green-yellow and appear from July to October.

**PARTS USED:** Leaves, berries, and fruits.

**VITAMINS:** C.

**TRADITIONAL USES:** Used for hundreds of years as a stomach stimulant to increase the flow of bile. It acts both as an appetite stimulant and to inhibit the symptoms of gastritis. It also stops diarrhea and bleeding from the rectum from hemorrhoids. It has a healing effect on the mucous membranes of the stomach, intestine and colon. Wormwood aids the blood in clotting, acting as a hemostat externally and internally. It also has strong anti-inflammatory properties. Native Americans have used Wormwood to kill and help expel parasitic worms and it is contained in almost all herbal worming combinations. It is also used in treating chicken pox, measles, and smallpox. Wormwood is normally taken as a tincture or in capsule form.

**SELF-HELP USES:** Worms, Digestive tract, Appetite stimulant.

**COMPONENTS:** Artemetin, Ascorbic-acid, Beta-carotene, Beta-thujone, Cadinene, Chamazulene, Camphene, Chlorogenic-acid, Fats, Formic acid, Isoquercitrin, Nicotinic-acid,

Palmitic-acid, Pinene, Phellandrene, Potassium, Protein, Protocatechuic-acid, Rutin, Tannins, Vanillic-acid, Volatile oils.

## YELLOW DOCK

*Rumex crispus*

**HABITAT & DESCRIPTION:** Yellow dock is indigenous to Europe and Africa and is now found throughout the USA and Canada. It is most commonly found in open spaces where soil is frequently disturbed such as fields, road sides, ditches, and dumps. Yellow dock is a perennial herb which stands no more than four feet tall. Its common name refers to the yellow taproot rather than the flowers or leaves. It produces light green-yellow floppy flowers between early spring and late autumn.

**PARTS USED:** Leaves and roots.

**VITAMINS:** B-complex, C.

**TRADITIONAL USES:** Used by Native Americans for a large number of ailments, Yellow dock was considered a very valuable medicinal plant. The Indians used Yellow dock to treat jaundice, liver, colon and gallbladder problems,



glandular inflammation and swelling. Yellow dock is also one of the best astringents and antiseptics for use on the skin. It may be used to treat cuts, scrapes, wounds and lacerations with excellent results. Taken internally it has a reputation for clearing up skin problems such as eczema, urticaria and psoriasis. This herb is known for being one of the best herbs for treating anemia. It has also gained a well earned reputation for treating many glandular disorders. Traditionally it is said to tone up the whole system, act as a blood purifier and cleanser and is helpful for rheumatism. Yellow dock may be found in tea, tincture or capsule form.

**SELF-HELP USES:** Ringworm, Anemia.

**COMPONENTS:** Ascorbic-acid, Avicularin, Beta-carotene, Calcium, Chromium, Chrysarobin, Chrysophanic-acid, Cobalt, Emodin, Ethandolic acid, Fats, Galactose, Glucose, Hyperoside, Iron, Magnesium, Manganese, Niacin, Oxalic acid, Phosphorus, Potassium, Protein, Quercetin, Riboflavin, Rutin, Selenium, Silicon, Sodium, Tannins, Thiamin, Tin, Zinc.

## YERBA MATE

*Ilex paraguariensis*

**HABITAT & DESCRIPTION:** Yerba mate is indigenous to Paraguay, Brazil, Argentina, and Uruguay; however, it is now cultivated in many tropical countries to supply a world demand for its leaves. The word mate is Spanish for "gourd," and refers to the small gourd cup in which the tea beverage traditionally is served throughout South America. It is also served with a metal drinking straw or tube (bombilla) which has a filter attached to the lower end to strain out fragments.



**PARTS USED:** All parts.

**VITAMINS:** B<sub>5</sub>, C, and E.

**TRADITIONAL USES:** A South American herb used as a stimulant, much as we use coffee. It has a high caffeine content which accounts for its CNS stimulating effect as well as its use in treating headaches. It acts as a diuretic and is used in the treatment of fatigue, edema, allergies and arthritis. It seems to stimulate the production of cortisone which would account for its effectiveness in treating inflammation and allergies. Yerbamate has also been used as an appetite suppressant for hundreds of years. It has been used traditionally to cleanse the blood, retard aging, stimulate the mind, tone the nervous system, stimulate cortisone production, control the appetite, and enhance and aid the healing powers of other herbs. A recipe to relieve allergy symptoms and constipation is to use 2-3 tbsp. Yerbamate in 16 oz. purified hot water.

**SELF-HELP USES:** CNS-Stimulant, Headaches, Diuretic

**COMPONENTS:** Buteric acid, Caffeine, Chlorogenic-acid, Choline, Fats, Inositol, Iron, Isovaleric-acid, Nicotinic-acid, Resin, Riboflavin, Rutin, Tannins

## YUCCA

*Yucca glauca*

**HABITAT & DESCRIPTION:** Originally from North and Central America, yucca prefers

prairies and waste areas in sandy soil or limestone. Yucca is a three to four foot wide clump of pale-green dagger-like leaves which gives rise to a flowering stalk between three and four feet. Bell-shaped greenish-white pendulous flowers are followed by woody oblong cream-colored seed capsules.

**PARTS USED:** Roots.

**VITAMINS:** N/A



**TRADITIONAL USES:** Traditionally used by the Southwestern Indians for genital-urinary tract infections, it is effective in treating urethritis, prostatitis and cystitis. It was also found effective in the treatment of gout. It is used externally as a poultice for the treatment of skin disorders such as eruptions, slow healing ulcerations and infected wounds. When used externally, it will also stop bleeding. Poultices were placed on sprains as well as broken bones to reduce pain and inflammation and improve healing. Yucca is considered a blood purifier (an agent which removes toxins from the blood) and is useful for reducing inflammation from arthritis, rheumatism and other painful conditions. This is believed due to the effect of Yucca on corticosteroids in the blood. It's also been used to lower blood glucose levels and has been effective in the treatment of diabetes.

**SELF-HELP USES:** Inflammation, Arthritis, Genital-Urinary tract infections, Skin.

**COMPONENTS:** Ascorbic acid, Beta-carotene, Calcium, Chromium, Cobalt, Fats, Iron, Magnesium, Manganese, Niacin, Phosphorus, Potassium, Protein, Saponins, Selenium, Silicon, Sodium, Tannins, Thiamin, Tigogenin, Tin, Zinc.

**COMMENTS:** In some clinics Yucca is routinely prescribed for arthritis (both rheumatoid and osteoarthritis). It can also be used to make a natural lather as a soap substitute by cutting it up in water; adding it to shampoos, or using it alone to wash your hair (one cup in two cups of water). It makes a wonderful soap because of its exceptional astringent and antiseptic qualities. Yucca may be taken in capsule, tincture or powder form for internal use.



# How To....





**...GROW**  
**...HARVEST**  
**...PREPARE**  
**...COMBINE**





# HOW TO GROW HERBS

**THE BEST ADVICE WE CAN GIVE YOU IS TO ONLY GROW WHAT ALREADY GROWS AROUND YOU OR WHAT YOU ARE ABLE TO GROW INDOORS. OTHER HERBS SHOULD BE PURCHASED IN WHOLE RAW HERB FORM.**

The requirements for **proper growing** of herbs vary a great deal from acidic soil requirements to alkaline soil requirements. Their soil moisture content, drainage, sunlight exposure and even shade and hillside direction and altitude all have effects. The book that will soon follow will cover all of these factors on an herb by herb basis. It may be worthy to note that when I was taught herbal medicine, both Chinese and Native American, I was taught a simple method that usually insured success. Even though there is little known by most, of the similarities of these techniques, I will outline them here.

Many cultures several hundred years ago were nomadic and traveled, from good hunting and gathering areas to other areas, when game and consumable forage was no longer plentiful. These tribes would gather the herbs as they found them and dry them or make tinctures from them for future use.

Other tribes that were more geographically stable, such as the Cherokee that built log homes and the Pueblo that built their homes into mountainsides, cultivated the most frequently used herbs. The method was simple and most growing was done through transplantation and growth from seeds.

In transplantation, plants were taken with a large dirt ball saved at the base of the plant. Symbols that represented the terrain that they were taken from and the direction they faced were all noted. The balls of soil were then used to match soil around the tribal land as closely as possible. Frequently the soil was even tasted to determine its acidity or alkalinity and other factors. When the match was as close as they could make it, the planting was done.

When planting from seeds the same process was used, only soil from the plant that the seeds were gathered from was taken for a match. The seeds were then planted in the closest possible environment to that of the adult plant.

These techniques were almost always used on fairly fast growing herbal plants. Some plants used in medicine were taken from adult trees or very slow growing herbs, such as American Ginseng, and these were simply gathered when found. In the case of Ginseng, care was always taken to be sure other less mature plants were in the area in order to preserve them for future generations. American Ginseng became so valuable that wild herbal crafters almost wiped it out in the USA. **For that reason, laws have been passed that make it a crime to harvest wild Ginseng in most parts of the country.** The people taking even immature plants for sale are to be frowned on and the product should never be bought from them. They have almost eliminated one of the most versatile herbs in our country. It is prized and valued above both Siberian Ginseng and Chinese Ginseng due to its higher content of ginsenosides.

While visiting in Bucharest, I was taken to the one of the largest herbal suppliers in the world that routinely supplied high quality herbal products of great diversity. This company encompassed several stories and a complete city block in downtown Bucharest.

Its products were clean and reliable because they were monitored from planting to harvesting. This company was responsible for supplying all of the Soviet Union, prior to its breakup, but was then, trying to find markets to replace the former need. I also visited Moldova, where they were growing ginseng in petri dishes and controlling the various ginsenosides as desired.

**The point is many herbs will take far too long to grow to be useful for your consumption.** Many others grow at altitudes and in other extreme conditions that would be very difficult to reproduce. For those that grow around your region that you are easily able to grow, the old methods work best, but may limit your desire to create the recipes you require.

Due to these problems, I would make the following suggestion. If you find a recipe online or in our next book, which you feel, would be helpful; order them from a reliable source in their bulk form and work with those you are unable to grow yourself. I would suggest you make your own tinctures from the whole herb you have ordered from your reliable source. I order my herbs from a store called "The Herb Corner" in Melbourne, Florida. I do this because I know the care they take in acquiring sources and know they only sell herbs that have been grown cleanly and properly with no added pesticides. There are many stores like this around, and the good ones never mind being asked what the sources for particular herbs are.

The reason I am suggesting you make your own tinctures from the whole herb is due to the fact that some companies have been known to remove primary actives from an herb, then sold tinctures of that herb and the actives separately to another company. Just because it says organic or is an herbal product does not mean it is either grown properly or is total in its active constituents. **When I make a formula, I make specific requirements for the specific actives and use the whole herb.** The herbs I use are always triple tested, not only for contamination, but for percentage of active compounds to tell me exactly how much has to be used to accomplish the goal. This is an expensive and time consuming process that you cannot be expected to do in your home. For the home herbalist, tinctures made from a reliable source of the whole herb are the safest and surest way to go to insure a reliable outcome.

About 14 years ago I met a patient that had endured four heart bypass surgeries and stent inserts. He was not expected to live over a year. He was so weak that he was unable to get up off the floor if he got down. Aside from radical dietary changes, and a good multiple vitamin and mineral supplement, I suggested a few other supplements, including a cayenne tincture to be taken regularly. When asked, I suggested he use a well-known and good selling product he could order. I tried very hard not to sell products from my office. After several months on these supplements and dietary changes he asked about the cayenne tincture. He said he had read about it and felt he could make a better tincture using the

old method described in this book. In a little over eight months he proudly presented me with his homemade tincture to try. He told me it had only taken 5 months to grow the species of pepper he had chosen through his research and another 3 months to prepare the tincture as is presented in this book. Darned if it wasn't 100% better than what he had been purchasing. He had studied the topic and made the correct choice in pepper species and made the tincture the way they should be made. His reward was a far superior product. From that point on I asked if he would mind making more of his tincture so my other patients that required it could use his. This he was happy to do and he never charged a single patient for his product. **The simple moral is, with a little research and with the right guidance, you can make a superior product if you choose.** Just choose your sources carefully and rely on the simple instructions and rely on the wisdom of our ancestors that have thousands of years of experience behind them.





# HOW TO HARVEST HERBS

This is a subject that could only be given justice to in a book of its own. For the purpose of this book, I will offer the following chapter as an example and give a few exceptions to begin the learning process. This will also help you become familiar with the most frequently used methods and their advantages.

Harvesting of herbs is almost always done when the herb is at its peak of ripeness or growth. At this time the herbs have the highest concentration of active phytochemicals. It is also the time that if they are to be dried, they will retain the highest concentration of actives.

Naturally if the fruit is the target, harvesting will take place when the fruit has reached maturity. If the seeds are the object of the harvesting, then you must wait until the plant has matured and the seeds are ready to be picked from the plant.

**The most important point to remember is that the ideal time for harvesting plant parts is to do it when the plant contains the highest amount of desired phytochemicals.**

At this point I feel it is important to go over how herbs were measured when using them in complex formulations or in simple combinations. Because recipes were often traded between medicine men and Orientals that may speak different dialects or use different forms of measurements, a simple way to get around that problem was easily solved. Measurements were simply put into parts. Regardless of the size or measurement a part was mixed with 1 or 3 or 6 parts using the same measurement. It might be a handful, a specific cup size or a simple bottle size, but the parts were kept consistent. Later in this book, a few recipes are given. The parts are 1-1-1 on all tinctures used in these recipes. More complex recipes will be in a forthcoming book, but the measurement method will always be the same, and all recipes are given in this manner.

**The most flexible method of processing herbs is in making a tincture.** Tinctures usually have a safe shelf life of seven years, and may be added to animal or vegetable fats for transdermal or wound applications, taken sub-lingual, orally, added to teas, or placed directly on wounds, used as a suppository if cooled or in a poultice if required. All of these actions rely on the purposes for which the herbs were chosen.

The most often used tinctures are made from a mixture of 50% ethanol and 50% water. Many plant chemicals that will dissolve in alcohol will not separate in water. The inverse is also true. Many plant chemicals that are soluble in water are not soluble in alcohol. By using a 50/50 mixture of water and alcohol we are able to get the most actives from our herbs. There are always some exceptions, but first allow me to present the Chinese and Native American method of making the basic tincture. This is the old school method, but I have found it to be **extremely reliable**.

If you are using whole herbs, crush them prior to making the tincture. Fill a glass jar or other glass container that has an airtight lid with unpacked herbs that you'll be using to make the tincture. It doesn't matter whether you are using fresh or dried herbs, the method is the same. After you have filled the jar with the loose herbs, cover them with 100 proof inexpensive vodka (100 proof

contains a 50/50 mixture of ethanol and water). Cover the mixture with the airtight cover. Shake the mixture well and place in a dark cupboard. Shake the mixture twice daily for 30 days. At the end of 30 days, strain the mixture and retain the fluid, which has now become your tincture.

If possible, transfer the tincture into smaller dark glass bottles with a dropper top. It is important to try to protect the tinctures from sunlight as much as possible. Many active phytochemicals are broken down by sunlight.

When making tinctures always use glass containers, never use any aluminum as it can destroy the tincture and make your hard work useless. In advanced mixtures in which low heat may be used, they must come in contact with nothing but stainless steel.

**Aluminum is always to be avoided.**

Now days, this process is being speeded up for mass production using low heat extraction, vacuum assisted extractions, and freeze drying. Being "old school" and after sampling the results of these other methods, I firmly believe that the older method is best for extracting the most actives, although it is more time consuming. As always, there are exceptions to every rule. Lobelia should use only ethanol in extraction if it is going to be used internally. Some of the water soluble actives can be slightly toxic and should not be used regularly.

The more surface area of the herbs exposed to the extracting material, the more active the tincture will contain. **Shaking the bottles twice a day will insure that the herbs are constantly agitated and will aid in a more concentrated tincture.**


If alcohol is not desired in what is to be used, the alcohol can easily be evaporated out of the tincture by simply adding hot water for making a tea, or by using very low heat. Too much heat can destroy the tincture so keep it below a simmer. You only need to get it warm enough to evaporate the alcohol. Alcohol will evaporate much sooner than the water.

Raw herbs for use in the future may be stored in dark glass jars or canning jars kept in a cool dark room. They should normally be used as fresh as possible, but many herbalists and homeopaths spend the spring, summer and fall in picking their raw herbs, and make their preparations in the late fall and winter. They store their herbs in glass jars, tightly sealed and keep them in a cool dark place.

It may be desired to keep some herbs ground into powder form. A good example would be Tienchi ginseng or Sanchi ginseng. These powders may be used to stop bleeding in wounds in their powder forms, as well as act as an antibacterial.

Many herbs you may wish to use as a cream form for treatment of topical wounds, poison ivy, rashes, burns or other reasons. These will require the tinctures to be mixed with either olive or hemp oil or rendered fat from animal sources. **Each type of oil has its advantages and disadvantages.** These uses will need to be addressed in a recipe by recipe manner in much greater detail than





is covered in this book. Our next book will deal much more explicitly with various recipes and their preparation in great detail.

The next book will deal with the complete guide to making herbal medicine from the rendering of fat into tallow from animals such as deer, beef, lamb, buffalo and even emu. Each has its own properties and these unique properties allow their uses to vary from quickly absorbed transdermal applications to suppositories. Each has distinct uses which rely on varying melting temperature and their individual active components.

**Some herbs may be used directly from the plant.** A good example would be Aloe. The gel scrapped from the inside of the leaf may be used externally for the treatment of Topical infections, Burns, Dermabrasion, Cutaneous Leishmaniasis, Insect Bites/Stings, Seborrheic Dermatitis, Decubitus Ulcers and sunburn to name a few. The same gel taken internally may be used for Colitis, Constipation, Gastric Ulcers, and Allergies to name a few. Aloe is best used fresh, but they make wonderful houseplants and can come in very handy when needed.

Whenever using a new herb it is always recommended that a piece of it be placed on the tongue for several minutes and at least an hour should pass before using it as a therapeutic herb. **This will allow time for the user to be sure he is not allergic to the herb.** Though almost all herbs used have either no or very limited toxicity, allergies do exist and it is safest to make sure one is not allergic to the herb before using it for medicinal purposes. A taste of the herb when it is picked is always a good idea anyway. With experience you will be able to tell when the plant is at its peak and begin to become aware of the subtle changes that occur when a plant is at its peak for herbal use. It will immediately become apparent that all herbs do not have a pleasant taste or texture. I do not like the taste of many medicinal herbs myself. I can however tell you when the actives are at their peak by this simple tasting technique.



# HOW DO HERBS WORK?

This is a very complex question, though it seems simple. In the simplest way, I could say they work exactly like any medicine works, only with a much higher degree of safety and positive side effects rather than harmful side effects and on several different levels consecutively. I am not saying this because I am a specialist in herbal medicine; I have also had to study pharmacology as well as pharmacognosy. **I am saying this because it is quite simply true.** Though the pharmaceutical companies always focus on one single constituent of an herb, they very infrequently study the effects of the total herb and how all of its constituents work together.

In point of fact, over 85% of currently used prescriptions are synthetic forms of plant chemicals, (phytochemicals), and the list is growing longer daily. For this reason alone, you can easily reply to anyone who says herbal medicines don't work; **that most prescriptions they are taking are copies of herbal active constituents.**

The thing that pharmaceutical companies continue to fail to understand is that herbals have multiple mechanisms of action and contain several active constituents that work in concert with one another (synergy). **Regrettably, pharmaceutical companies are more concerned with having the ability to patent their synthetics** rather than what the actual effects of their changes, or what the actions of the chemicals they are trying to copy or change, might do.

I have several patented herbal products. They were granted patents after providing laboratory proof that they actually worked and did exactly as they were represented and had no negative side effects. *Please exclude taste from this equation, because some of them actually taste quite bad to some people.*

school professors to run the research while teaching in medical schools with strict confidentiality clauses to insure they are able to both control the outcomes of their research and directly profit from the research while placing the school's reputation as a reliable source of quality information in jeopardy. This is done while at the same time they are working to insure the passage through the FDA process.

As an example, Iowa Senator Chuck Grassley found that Dr. Alan F. Schatzberg (the chair of the Stanford University psychiatry department and president elect of the American Psychiatric Association) controlled more than **\$6 million** worth of stock in a company he cofounded – Corcept Therapeutics – that was testing mifepristone. Mifepristone is the abortion drug otherwise known as RU-486 and is being tested as a treatment for psychotic depression. During this same time period, Schatzberg was the principal investigator (on a grant from the National Institute of Mental Health) that included research on mifepristone for this use. At the same time, he coauthored three papers on the subject. Incredibly, in a statement released by Stanford University, they professed **“no conflict of interest”** in this arrangement, although a month later the university's counsel announced that it was temporarily replacing Schatzberg as principal investigator *“to eliminate any misunderstanding.”*

But, **let's get back to how herbs work.** Through several studies I will show the numerous actions of one plant chemical. When used with the entire plant containing all of its active constituents it will often work better, however, for the sake of simplicity we'll deal with only one phytochemical and see what the studies have shown.

Quercetin is a chemical from some plants and is naturally found in Guava, Strawberry, Acerola, Saint John's Wort and Yarrow. Quercetin is often used for severe allergy symptoms due to its well documented antihistamine effects. Along with its acting as a very effective antihistamine it is effective in the treatment of colitis. Clinical trials have shown that in subjects with colitis, quercetin reduces myeloperoxidase and alkaline phosphate levels. These actions preserve normal fluid absorption, counteract glutathione depletion and reduce colon damage after two days of use. It has also been shown to inhibit the replication of the Influenza A Virus that causes Influenza. [Sanchez de Medina, F., et al. *Effect of Quercetin on acute and chronic experimental colitis in the rat.* J Pharmacol Exp Ther. 278(2):771-779, 1996].

Quercetin was tested for acute and chronic anti-inflammatory activity in trinitrobenzenesulfonic acid-induced rat colitis. The inflammatory status was evaluated by myeloperoxidase, alkaline phosphatase and total glutathione levels, leukotriene B4 synthesis, in vivo colonic fluid absorption, macroscopical damage and occurrence of diarrhea and adhesions. Treatment with 1 or 5 mg/kg of quercitrin by the oral route reduced myeloperoxidase and alkaline phosphatase levels, preserved normal fluid absorption, counteracted glutathione depletion and ameliorated colonic damage at 2 days. Increasing or lowering the dose of the flavonoid resulted in marked loss of effect. The acute anti-inflammatory effect of quercetin is unrelated to impairment of neutrophil function or lipoxygenase inhibition, and it may be caused by mucosal protection or enhancement of mucosal repair secondary to increased defense against oxidative insult and/or preservation of normal colonic



Unfortunately, scientists at pharmaceutical companies are not trained adequately to gain patents in this manner, so we, the public **have to suffer for their ignorance and greed.** From the beginning of the AMA and the consolidation of these physicians with the big pharmaceutical companies their goal has been to replace safe and proven methods with new patented **partial copies** of herbs as well as **synthetic reproductions** which attempt to copy herbal actions. At the same time they are able to pay medical

absorptive function. When tested in chronic colitis (2 and 4 weeks), quercetin treatment (1 or 5 mg/kg.day) decreased colonic damage score and the incidence of diarrhea, and normalized the colonic fluid transport. All other parameters were unaffected. The chronic effect of the flavonoid is apparently related to its action on colonic absorption, although it can be partly secondary to its acute beneficial effects. [Choi, H. J., et al. Inhibitory effects of quercetin 3-rhamnoside on influenza A virus replication. *Eur J Pharm Sci.* 37(3-4):329-333, 2009 Immune Mod. Research Center, Korea Research Inst. of Bioscience and Biotechnology, Daejeon, Korea].

Influenza viruses cause significant morbidity and mortality in humans through epidemics or pandemics. The lack of effective therapeutical treatment underlines the importance of research for new antiviral compounds. Flavonoids widely exist in the plant kingdom, and their antiviral activities against various viruses have been recently reported. In this study, the anti-influenza A/WS/33 virus of quercetin 3-rhamnoside (Q3R - quercitrin) from *Houttuynia cordata* was evaluated using a cytopathic effect (CPE) reduction method. The assay results demonstrated that Q3R possessed strong anti-influenza A/WS/33 virus activity reducing the formation of a visible CPE. Q3R inhibited virus replication in the initial stage of virus infection by indirect interaction with virus particles. However, oseltamivir has relative weaker efficacy compared to Q3R. Therefore, these findings provide important information for the utilization of Q3R for influenza treatment.

[Hanamura, T., et al. Structural and functional characterization of polyphenols isolated from acerola (*Malpighia emarginata* DC.) fruit. *Biosci Biotechnol Biochem.* 69(2):280-286, 2005. Research and Development Division, Processed Foods Company, Nichirei Corporation, Chiba, Japan.]

Two anthocyanins, cyanidin-3-alpha-O-rhamnoside (C3R) and pelargonidin-3-alpha-O-rhamnoside (P3R), and quercitrin (quercetin-3-alpha-O-rhamnoside), were isolated from acerola (*Malpighia emarginata* DC.) fruit.

Compare this to the well-known side effects of one of the safest pharmaceuticals used as an antihistamine:

- Sedation (a feeling of sleepiness and reduced anxiety) drowsiness, dizziness, coordination problems, indigestion or heartburn, thickening of bronchial secretions (chest mucus), sensitivity to the sun, excessive sweating and/or chills, dry mouth, nose, or throat, fatigue, restlessness, excitation, nervousness, or irritability, shakiness (tremor), insomnia, an unusual, pleasant feeling (euphoria), unusual sensations, such as tingling or numbness, a spinning sensation (vertigo), loss of appetite, nausea, or vomiting, diarrhea or constipation, nasal stuffiness, early menstrual period.

There are also possible side effects that are not desirable in Herbal Medicine, but they are much rarer and less harmful. Personally I find it very disheartening for these pharmaceutical companies benefiting from large tax breaks, inheritances left to them, and large contributions from hard working people that know no better. At the same time, master herbalists and Naturopaths are given nothing to further their own efforts to produce viable natural herbal products for today. And while doing so, they are forced to manage to have research done overseas and often actually have to fight to keep the truth hidden if they discover a successful treatment in order to keep it on the market. The big question is now, **“where would we be if we had continued on the path of integrative medicine.”**





# HOW TO COMBINE HERBS AND TREAT COMMON AILMENTS

Herbs all have primary uses drawn from their individual phytochemical properties. Throughout the book however, you will find several herbs overlap in their uses. Some overlap due to having the same mechanism of action and some from attacking the problem from a different aspect altogether. It is these different phytochemical methods of actions that allow us to combine herbs to gain maximum potential for successful use.

As stated earlier in the book, these herbs should be used in a 1-1 ratio. In other words, regardless of the measurement you use, whether it be cup, tablespoon or handful, the ratios used should be one to one. In more complex recipes, other ratios will be used.

It is always best as previously stated that the herbs should be tasted, a drop of the tincture is fine, and left on the tongue for as long as possible. Wait an hour to determine if you develop an abnormal reaction to the herb due to an allergy. Though they are very rare in herbal medicines, I have seen them occur and this is the simplest way to avoid them.

This book section is done differently from the rest. After every active I have listed a study or three to validate "scientifically" the active compounds of these herbs effectiveness. Note that in none of these studies are the synergistic effects of the herbs other constituents mentioned. That is a major problem with many or even most studies of herbals. Synergistic effects are seldom if ever brought into account, and in many cases, only single actives effectiveness is even looked at in the vast majority of studies.

We have limited this book to a very few recipes for the treatment of some of the most common ailments, as well as to recipes that only require the use of herbs. Many complex herbal recipes require the use of other compounds such a honey or oil to be most effective. Many others require that the actives from the herbs be mixed into specific fats that will encapsulate them for more complete assimilation into the body. This method is thousands of ears old, but the process is now called placing the "drug" into a liposome. It has been shown to increase assimilation as well as controlling the time of release as well as many other benefits. As stated before, recipes will require a complete book to even scratch the surface of their complexities.

## ALLERGIES

### Ginger

In the present study on five pure phenolic compounds (1-5) isolated from the rhizomes of *Zingiber officinale* (ginger) and investigated for their antiallergic potency, rat basophilic leukemia (RBL-2H3) cells were incubated with these compounds and the release of beta-hexosaminidase was measured kinetically. The data obtained suggest that ginger rhizomes harbor potent compounds capable of inhibiting allergic reactions and may be useful for the treatment and prevention of allergic diseases. [Chen, B. H., et al. Antiallergic



potential on RBL-2H3 cells of some phenolic constituents of *Zingiber officinale* (Ginger). *Journal of Natural Products*. 2009]

### Ginkgo Biloba

The authors investigated the effects of BN 52021 (a specific PAF antagonist derived from Ginkgo biloba) on PAF-induced human eosinophil and neutrophil chemotaxis. In response to an optimal concentration of PAF ( $10(-6)$  mol/L), the drug was significantly more potent in inhibiting eosinophil as compared to neutrophil locomotion. These inhibitory effects were observed in a dose-dependent manner with a concentration of drug required to produce 50% inhibition of  $7.0 (+/- 2.2) \times 10(-6)$  mol/L and  $2.3 (+/- 0.2) \times 10(-5)$  mol/L for eosinophils and neutrophils, respectively. Sodium cromoglycate, nedocromil sodium, salbutamol, and dexamethasone (preincubated with cells up to 6 hours) had no effect over a wide dose range ( $10(-3)$  to  $10(-9)$  mol/L).

BN 52021 was significantly more effective in inhibiting chemotaxis when the cells were preincubated with the compound for up to one hour before commencement of the locomotion assay, whereas washing the cells completely abolished this effect. Inhibition by BN 52021 was specific for PAF in that it had no effect on chemotaxis induced by either leukotriene B<sub>4</sub>, N-formyl-methionyl-leucyl-phenylalanine, or a purified human mononuclear cell-derived neutrophil chemotactic factor. BN 52021 also inhibited the specific binding of [<sup>3</sup>H]-PAF ( $10(-8)$  mol/L) to eosinophils and neutrophils in a concentration-dependent fashion with a concentration of drug required to produce 50% inhibition of  $1.5 (+/- 0.3) \times 10(-6)$  mol/L and  $9.1 (+/- 2.5) \times 10(-7)$  mol/L, respectively. BN 52021 has potential as an anti-inflammatory agent in conditions associated with PAF-induced accumulation of neutrophils and eosinophils. [Kurihara, K., et al. Inhibition of platelet-activating factor (PAF)-induced chemotaxis and PAF binding to human eosinophils and neutrophils by the specific ginkgolide-derived PAF antagonist, BN 52021. *J Allergy Clin Immunol*. 83(1):83-90, 1989]

## Stinging Nettle

This double-blind, randomized study comparing the effects of a freeze-dried preparation of *Urtica dioica* (stinging nettles) with placebo on allergic rhinitis in 98 patients. 69 patients completed the study. Assessment was based on daily symptom diaries, and global response recorded at the follow-up visit after one week of therapy. *Urtica dioica* was rated higher than placebo in the global assessments. [Mittman, P. et al. Randomized, double-blind study of freeze-dried *Urtica dioica* in the treatment of allergic rhinitis. *Planta Medica*. 56(1):44-47, 1990]

A nettle (*Urtica dioica*) extract shows in vitro inhibition of several key inflammatory events that cause the symptoms of seasonal allergies. These include the antagonist and negative agonist activity against the Histamine-1 (H<sub>1</sub>) receptor and the inhibition of mast cell tryptase preventing degranulation and release of a host of pro-inflammatory mediators that cause the symptoms of hay fevers. The nettle extract also inhibits prostaglandin formation through inhibition of Cyclooxygenase-1 (COX-1), Cyclooxygenase-2 (COX-2), and Hematopoietic Prostaglandin D(2) synthase (HPGDS), central enzymes in pro-inflammatory pathways. The IC<sub>50</sub> value for histamine receptor antagonist activity was 251 (+/-13) microg mL<sup>-1</sup> and for the histamine receptor negative agonist activity was 193 (+/-71) microg mL<sup>-1</sup>. The IC<sub>50</sub> values for inhibition of mast cell tryptase was 172 (+/-28) microg mL<sup>-1</sup>, for COX-1 was 160 (+/-47) microg mL<sup>-1</sup>, for COX-2 was 275 (+/-9) microg mL<sup>-1</sup>, and for HPGDS was 295 (+/-51) microg mL<sup>-1</sup>. Through the use of DART TOF-MS, which yields exact masses and relative abundances of compounds present in complex mixtures, bioactives have been identified in nettle that contribute to the inhibition of pro-inflammatory pathways related to allergic rhinitis. These results provide for the first time, a mechanistic understanding of the role of nettle extracts in reducing allergic and other inflammatory responses in vitro. [Roschek, B., et al. Nettle extract (*Urtica dioica*) affects key receptors and enzymes associated with allergic rhinitis. *Phytotherapy Research*. 23(7):920-926, 2009], [HerbalScience

**THESE TINCTURES MAY BE ADDED TO A CUP OF GREEN TEA AND TAKEN SEVERAL TIMES A DAY AS NEEDED.**

Group LLC, Naples, FL, USA]

The authors previously found that the O-methylated derivative of (-)-epigallocatechin-3-O-gallate (EGCg), (-)-epigallocatechin-3-O-(3-O-methyl)-gallate (EGCG' 3Me), has potent antiallergic activity. The high-affinity IgE receptor, FcεpsilonRI, is found at high levels on basophils and mast cells and plays a key role in a series of acute and chronic human allergic reactions. To understand the mechanism of action for the antiallergic EGCG' 3Me, the effect of EGCG' 3Me on the cell surface expression of FcεpsilonRI in human basophilic KU812 cells was examined. Flow cytometric analysis showed that EGCG' 3Me was able to decrease the cell surface expression of FcεpsilonRI. Moreover, immunoblot analysis revealed that total cellular expression of the FcεpsilonRI alpha chain decreased upon treatment with EGCG' 3Me. FcεpsilonRI is a tetrameric structure comprising one alpha chain, one beta chain, and two gamma chains. The level of mRNA production of each

subunit in KU812 cells was investigated. EGCG' 3Me reduced FcεpsilonRI alpha and gamma mRNA levels. The cross-linkage of FcεpsilonRI causes the activation of basophils, which leads to the secretion of inflammatory mediators including histamine. EGCG' 3Me treatment inhibited the FcεpsilonRI cross-linking-induced histamine release. These results suggested that EGCG' 3Me can negatively regulate basophil activation through the suppression of FcεpsilonRI expression. [Fujimura, Y., et al. Antiallergic tea catechin, (-)-epigallocatechin-3-O-(3-O-methyl)-gallate, suppresses FcεpsilonRI expression in human basophilic KU812 cells. *J Agric Food Chem*. 50(20):5729-5734, 2002]

## ASTHMA

### *Astragalus*

Asthma is recognized as a common pulmonary disease throughout the world. To date, there has been a growing interest in herbal products in Traditional Chinese Medicine, which is considered to be effective to treat asthma. A Chinese herb *Astragalus membranaceus* (AM) was found useful in treating allergic diseases. The purpose of this study is to determine whether this herbal injection could suppress allergic-induced AHR and mucus hypersecretion in allergic mice. A mouse model of chronic asthma was used to investigate AM injection on the airway lesions in compared with glucocorticoids. The study was conducted on mice sensitized and challenged with ovalbumin and the whole body plethysmography was performed to assess AHR. The bronchoalveolar lavage (BAL), histopathology were examined. The authors found 28-day AM administration significantly decreased



inflammatory infiltration and mucus secretion in the lung tissues of allergic mice. 28-day AM administration enhanced Ova-induced decreased IFN-gamma, and the Ova-induced elevations of IL-5 and IL-13 in BALF were prevented by 28-day injection. They also showed 28-day AM injection markedly suppressed increased AHR in allergic mice. The results indicate *Astragalus Membranaceus* has a potential role in treating allergic asthma. [Shen, H. H., et al. *Astragalus Membranaceus* prevents airway

hyperreactivity in mice related to Th2 response inhibition. *J Ethnopharmacol*. 116(2):363-369, 2008], [Department of Respiratory Medicine, The Second Affiliated Hospital, Medical School of Zhejiang University, Hangzhou, China]

The objective of this study was to explore the effect of *Astragalus membranaceus* (AM) on T-helper cell type 1 (Th1) specific transcription factor T-box expressed in T cells (T-bet) expression and Th1/Th2 equilibrium. The levels of T-bet mRNA in peripheral blood mononuclear cells (PBMCs) from 15 patients with asthma and



15 healthy subjects were determined by reverse transcription-polymerase chain reaction (RT-PCR). PBMCs in asthma patients were incubated with AM and then the concentration of interferon gamma (IFN-gamma) and interleukin-4 (IL-4) in the supernate before and after AM intervention were determined by ELISA. The numbers of CD4 + CCR3 + and CD4 + CCR5 + cells were counted by flow cytometry. The expression of T-bet mRNA and the level of IFN-gamma were lower, but level of serum IL-4 was higher in asthma patients when compared with those in healthy subjects respectively. After AM (60 microg/ml) intervention, the former two parameters raised and showed a positive correlation between them, while the level of IL-4 was decreased. The mean percentage of CD4 + CCR3 + cells in asthma patients was significantly higher but that of CD4 + CCR5 + cells was lower when compared with those in healthy subjects respectively. After AM intervention, the abnormal change in the two indexes was improved to certain extent, showing a reversing status of Th2 polarization. AM could increase the expression of T-bet mRNA and Th1 cytokines such as IFN- $\gamma$ , and might reverse the Th2 predominant status in asthma patients. [Wang, G., et al. Effects of Astragalus membranaceus in promoting T-helper cell type 1 polarization and interferon-gamma production by up-regulating T-bet expression in patients with asthma. *Chin J Integr Med.* 12(4):262-267, 2006]. [Department of Integrated Traditional Chinese and Western Medicine, West China Hospital, Sichuan University, Chengdu, China]

### **Boswellia**

This six week double-blind placebo-controlled study of 80 persons with relatively mild asthma found that treatment with boswellia at a dose of 300 mg three times per day reduced the frequency of asthma attacks and improved objective measurements of breathing capacity (dyspnea and wheezing) in 70% of subjects.



[Gupta, I., et al. Effects of Boswellia serrata gum resin in patients with bronchial asthma: results of a double-blind, placebo-controlled, 6-week clinical study. *Eur J Med Res.* 3:511–514, 1998], [Miller, A. The etiologies, pathophysiology, and alternative/complementary treatment of asthma. *Alternative Med. Review.* 6(1):20-47, 2001]

### **Ginkgo Biloba**

Platelet-activating factor (PAF) is an inflammatory mediator involved in the pathophysiology of asthma, suggesting a therapy

antagonizing its effects may play a role in the disease treatment. The aim of the study was to determine the effects of Ginkgo biloba, a PAF antagonist, on lung histology. Thirty-five BALB/c mice were divided into five groups; A, B, C, D, and the control. All mice except controls were sensitized and challenged with ovalbumin. Mice in group A (placebo) received saline; group B received G. biloba, 100 mg/kg; group C received G. biloba, 150 mg/kg; and group D received dexamethasone, 1 mg/kg via orogastric gavage for 7 consecutive days. Chronic structural changes and airway remodeling were evaluated by using light and electron microscopy in all groups. Evaluation of lung histology indicated that the number of goblet cells, mast cells, thicknesses of epithelium, and basement membrane were significantly improved in groups B and C when compared with group A. There was no statistically significant difference in thicknesses of subepithelial smooth muscle between groups A, B, and C. When doses of G. biloba were compared with each other, only the number of goblet cells was significantly lower in group C than in group B. When G. biloba and dexamethasone groups were compared with each other, thicknesses of basement membrane and subepithelial smooth muscle were found to be lower in group D than in groups B and C. G. biloba alleviates all established chronic histological changes of lung except smooth muscle thickness in a mouse model of asthma. [Babayigit, A., et al. Effects of Ginkgo biloba on airway histology in a mouse model of chronic asthma. *Allergy Asthma Proc.* 2008]

This study was undertaken to identify novel approaches to pharmacological treatment of asthma. The authors hypothesized that the platelet-activating factor receptor antagonist ginkgolide B (GB) in combination with the antioxidant carotenoid astaxanthin (ASX) suppresses T cell activation comparably to two commonly-used antihistamines: cetirizine dihydrochloride (CTZ) and azelastine (AZE). Peripheral blood mononuclear cells from asthmatics, cultured 24 h with either 50 microg/ml phytohemagglutinin (PHA) or PHA plus selected dosages of each drug are analyzed by flow cytometry for CD25+ or HLA-DR+ on CD3+ (T cells). Results are reported as stimulation indices (SI) of %CD3+CD25+ cells or %CD3+HLA-DR+ cells in cultures treated with PHA alone versus these subpopulations in cultures treated with both PHA and drugs. Combinations of ASX and GB exhibited optimal suppression at 10(-7) M GB + 10(-8) M ASX for CD3+CD25+ (SI = 0.79 +/- 0.04, P = 0.001) and 10(-7) M GB + 10(-7) M ASX for CD3+HLA-DR+ (SI = 0.82 +/- 0.05, P = 0.004). Suppression of T cell activation below fully stimulated values by GB, ASX, and their combinations was comparable and for some combinations better than that mediated by CTZ and AZE. These results suggest that ASX and GB may have application as novel antiasthmatic formulations. [Gaby, A. R. Ginkgo biloba extract: a review. *Alt Med Rev.* 1(4):236-242, 1996], [Mahmoud, F. F., et al. In vitro effects of astaxanthin combined with ginkgolide B on T lymphocyte activation in peripheral blood mononuclear cells from asthmatic subjects. *J Pharmacol Sci.* 94(2):129-136, 2004], [Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, Kuwait University]

A standardized Ginkgo biloba L. extract containing flavonol glycosides induces a concentration-dependent relaxation of guinea-pig trachea in vitro and antagonizes in vivo bronchoconstriction induced by various agonists. The action of the extract appears to be mediated partially by an interaction with the eicosanoid system particularly through specific stimulation of the PGE2 biosynthesis and partially by beta-adrenoceptor activation. The relaxation of guinea-pig trachea induced by the extract is in fact antagonized by

indomethacin ( $2 \times 10^{-8}$ M), ETYA ( $3.4 \times 10^{-8}$ M) and sotalol ( $4 \times 10^{-6}$ M). The concentration-response curves obtained with tracheal preparation from reserpinized guinea-pig and those performed in the presence of a glutathione depletor (CDNB  $1 \times 10^{-5}$ M) are modified in a similar manner confirming that the extract can act on both the systems: adrenergic as well as prostaglandinergic. [Puglis, L., et al. *Pharmacology of Natural Compounds. I. Smooth Muscle Relaxant Activity Induced by Ginkgo Biloba L. Extract on Guinea-Pig Trachea. Pharmacological Research Communications.* 20(7):573-589, 1988]

The objective of this study was to explore the partial therapeutic

**THESE TINCTURES MAY BE ADDED TO A CUP OF COFFEE TO ENHANCE THE ANTI-ASTHMATIC EFFECTS.**

mechanism of Ginkgo Biloba extract (GBE) in treating asthma. 14 SD rats were randomly divided into two groups, 7 rats were sensitized as the asthmatic model group and the others taken as the healthy control group. T lymphocytes were isolated from peripheral blood mononuclear cells (PBMCs) of the rats, and were cultured in vitro with Ginkgolide B (BN-52021 group) or Ginkgo Biloba extract 761 (EGb761 group) in different concentrations or without any of them (control group). T lymphocytes proliferation in groups was measured by using MTT assay and the effect of BN-52021 on T lymphocytes apoptosis was analyzed by flow cytometry at various times. Compared with the control group, BN-52021 could significantly inhibit the proliferation of T lymphocytes in both healthy and asthmatic rats in vitro ( $P < 0.05$ ). The effects were enhanced as the concentration increasing and the time prolonging, the effects to the latter were higher than those to the former, showing significant difference between them ( $P < 0.05$ ). However, the effect of EGb761 was varied with the concentrations. EGb761 could promote T lymphocytes proliferation at low concentration but inhibit it at high concentration, there was a significant difference as compared with that in the control group (all  $P < 0.05$ ). The apoptotic rate of T lymphocytes rose as the concentration of BN-52021 increasing ( $P < 0.01$ ). GBE has different effects on T lymphocytes proliferation since the different ingredients and the concentrations in vitro, and it also has different effects between healthy and asthmatic rats. Ginkgolide B is the main active ingredient among them, it can not only inhibit T lymphocytes proliferation but also increase the apoptotic rate. [Tang, Y. J., et al. *Effects of ginkgo biloba extract on proliferation and apoptosis of T lymphocytes in vitro in rats with asthma. Zhongguo Zhong Xi Yi Jie He Za Zhi.* 26(Supplement):47-50, 2006], [Department of Respiratory Diseases, Affiliated Tojgfi Hospital to Tongji Medical College, Huazhou University of Science and Technology, Wuhan]

The effects of a specific PAF acether antagonist (BN 52063) on the response to isocapnic hyperventilation with dry cold air (ISH study) and exercise (EIA study) were assessed in a single dose and short term treatment study in 10 patients with exercise induced asthma.

ISH challenge was performed twice within 1 h after administration of either placebo, 240 mg BN 52063 p.o. or inhalation of 2.4 mg BN 52063. Hyperventilation increased Raw from  $0.30 \pm 0.02$  to  $0.89$  kPa s l<sup>-1</sup> ( $P$  less than 0.001) after the first challenge and from  $0.28 \pm 0.04$  to  $0.84 \pm 0.06$  kPa s l<sup>-1</sup> ( $P$  less than 0.001) after the second challenge. Oral pretreatment with BN 52063 did not result in a reduction of bronchoconstriction during both challenges. A significant increase of Raw was noted immediately after inhalation of BN 52063. An inhibition of PAF induced platelet aggregation (by a factor of 2) occurred after oral administration of BN 52063 after both ISH challenges ( $P$  less than 0.05). No significant inhibition of PAF induced platelet aggregation was seen after inhalation of BN 52063. At concentrations up to 30 microM in vitro, BN 52063 inhibited PAF induced platelet aggregation in a dose dependent manner. The IC<sub>50</sub> of BN 52063 against the aggregating effect of 1 microM PAF was  $7.0 \pm 2.1$  microM. 3. In the EIA study the patients were challenged on the third day of treatment with either placebo or 240 mg BN 52063 p.o. or 5 mg BN 52063 by inhalation. Peak expiratory flow rates (PEFR) fell by  $155 \pm 37$  l min<sup>-1</sup> after exercise. [Wilkens, J. H., et al. *Effects of a platelet activating factor-antagonist (BN 52063) on bronchoconstriction and platelet activation during exercise induced asthma. British Journal of Clinical Pharmacology.* 29(1):85-91, 1990]

This study was to investigate the effect of total flavonoid in leaves of Ginkgo biloba (total flavonoid in leaves of Ginkgo biloba, FG) on the apoptosis of eosinophils (EOS) in broncho alveolar lavage fluid (BALF) of asthma mice. Mouse asthma model was established by ovalbumin (OVA) challenge methods. After atomizing therapy for two weeks, differential count in BALF, morphological change and proportion of apoptosis were detected by AO/EB stain and Annexin V-FITC/PI. The number of total leucocytes and eosinophils in BALF decreased obviously after FG treatment. Compared with model group, the number and proportion of EOS apoptosis increased significantly after FG treatment. The results indicated that one of the anti-inflammation mechanisms of FG might be promoting apoptosis of eosinophils. [Weng, X. J., et al. *Effect of total flavonoid in leaves of Ginkgo biloba on the apoptosis of eosinophil in broncho alveolar lavage fluid.* Yao Xue Xue Bao. 43(5):480-483, 2008], [Medical and Pharmaceutical Institute, Yangzhou University, Yangzhou, China]



## Skullcap

The baicalin content of skullcap inhibits type I and II hypersensitivity reactions, confirming its traditional use in asthma. [Nagai, H., et al. *Inhibition of hypersensitivity reactions by soluble derivatives of baicalin. Japan J Pharmacol.* 25:763-772, 1945], [Van Loon, I. M. *The golden root: clinical applications of Scutellaria baicalensis GEORGI flavonoids as modulators of the inflammatory response. Alternative Medicine Review.* 2(6):472-480, 1997]



## FLU AND COLDS

### Elderberry extract

Chimpanzees given Sambucol orally, as either a prophylactic or as a symptom-dependent treatment experienced fewer flu-like, upper respiratory ailments than chimpanzees administered a placebo. During the first fall and winter "flu season" of the study, five chimpanzees in an experimental group received 10 ml of Sambucol daily, while five chimpanzees constituting a control group received sugar syrup. When chimpanzees in the experimental group exhibited flu-like symptoms, they received an increased dose of Sambucol, 15 ml, twice daily. During the six months of the trial, the control group exhibited flu-like symptoms over a total of 39 days, whereas the experimental group had symptoms for a total of 12 days. During the second flu season, chimpanzees were strictly treated symptomatically with 15 ml of Sambucol twice daily. Symptoms lasted for fewer than 24 hours in all animals treated symptomatically. [Burge, B., et al. *The effect of Sambucol on flu-like symptoms in chimpanzees: prophylactic and symptom-dependent treatment.* *International Zoo News.* 46(1):16-19, 1999]



An ionization technique in mass spectrometry called Direct Analysis in Real Time Mass Spectrometry (DART TOF-MS) coupled with a Direct Binding Assay was used to identify and characterize anti-viral components of an elderberry fruit (*Sambucus nigra* L.) extract without either derivatization or separation by standard chromatographic techniques. The elderberry extract inhibited Human Influenza A (H1N1) infection in vitro with an IC(50) value of 252 $\pm$ 34 microg/mL. The Direct Binding Assay established that flavonoids from the elderberry extract bind to H1N1 virions and, when bound, block the ability of the viruses to infect host cells. Two compounds were identified, 5,7,3',4'-tetra-O-methylquercetin (1) and 5,7-dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)chroman-3-yl-3,4,5-trihydroxycyclohexanecarboxylate (2), as H1N1-bound chemical species. Compound 1 and dihydromyricetin (3), the corresponding 3-hydroxyflavonone of 2, were synthesized and shown to inhibit H1N1 infection in vitro by binding to H1N1 virions, blocking host cell entry and/or recognition. Compound 1 gave an IC(50) of 0.13 microg/mL (0.36 microM) for H1N1 infection inhibition, while dihydromyricetin (3) achieved an IC(50) of 2.8 microg/mL (8.7 microM). The H1N1 inhibition activities of the elderberry flavonoids compare favorably to the known anti-influenza activities of Oseltamivir (Tamiflu; 0.32 microM) and Amantadine (27 microM). [Roschek, B. Jr., et al. *Elderberry flavonoids bind to and prevent H1N1 infection in vitro.* *Phytochemistry.* 70(10):1255-1261, 2009. HerbalScience Group LLC, Naples, FL, USA]

Carbohydrate binding properties of a new plant lectin isolated from elderberry (*Sambucus nigra* L.) (SNA) bark were studied using the

techniques of quantitative precipitation, hapten inhibition, and equilibrium dialysis. Purified SNA precipitates highly sialylated glycoproteins such as fetuin, orosomucoid, and ovine submaxillary mucin, but not their asialo derivatives. Hapten inhibition experiments showed that both D-Gal and D-GalNAc are weak inhibitors of SNA-glycophorin precipitation, but neither Neu5Ac nor Neu5Gc is an inhibitor. A series of oligosaccharides which contain the terminal Neu5Ac(alpha 2-6)Gal sequence showed an extremely high inhibitory potency (1,600-10,000 times more inhibitory than Gal). On the other hand, oligosaccharides with the Neu5Ac(alpha 2-3)Gal linkage were only 30-80 times more inhibitory than Gal, thus showing a marked preference for the 2,6-linked isomer. Hapten inhibition with Gal and its epimers suggested that the equatorial OH at C-3 and the axial OH at C-4 of the D-pyranose ring are strict requirements for binding. Conversion of the Neu5Ac residue to its 7-carbon analogue by selective periodate oxidation of its glyceryl side chain, followed by NaBH<sub>4</sub> reduction, completely destroyed the ability of fetuin and orosomucoid to precipitate with SNA. Moreover, the same treatment of Neu5Ac(alpha 2-3) lactitol also abolished its ability to inhibit the precipitation reaction, suggesting that the glyceryl side chain of NBu5Ac (especially the C-8 and/or C-9 portion) is an important determinant for SNA. The increased inhibitory potency of various glycosides with beta-linked nonpolar aglycons suggested the presence of a hydrophobic interacting region adjacent to the carbohydrate binding site. The results of equilibrium dialysis using [3H] Neu5Ac(alpha 2-6) lactitol as ligand showed the presence of two equivalent, noninteracting carbohydrate binding sites in this tetrameric glycoprotein lectin ( $K_a = 3.9 \times 10^5$  M<sup>-1</sup>). [Shibuya, N., et al. *The elderberry (Sambucus nigra L.) bark lectin recognizes the Neu5Ac(alpha 2-6)Gal/GalNAc sequence.* *Journal of Biological Chemistry.* 262(4):1596-1601, 1987] Full text of this study can be viewed at: [www.jbc.org/cgi/reprint/262/4/1596](http://www.jbc.org/cgi/reprint/262/4/1596)

27 patients with recent onset of influenza were given either placebo or elderberry extract (two tablespoons (30 ml) a day for children; four tablespoons (60 ml) per day for adults). In subjects receiving elderberry, within 24 hours diminished influenza symptoms were observed in 20% of subjects afflicted with influenza. 93.3% experienced significant improvement in their symptoms after two days, compared to 25% of the placebo group. A total cure occurred in almost 90% of the elderberry group within two to three days vs. at least six days for the placebo group. A standardized elderberry extract, Sambucol (SAM), reduced hemagglutination and inhibited replication of human influenza viruses type A/Shangdong 9/93 (H3N2), A/Beijing 32/92 (H3N2), A/Texas 36/91 (H1N1), A/Singapore 6/86 (H1N1), type B/Panama 45/90, B/Yamagata 16/88, B/Ann Arbor 1/86, and of animal strains from Northern European swine and turkeys, A/Sw/Ger 2/81, A/Tur/Ger 3/91, and A/Sw/Ger 8533/91 in Madin-Darby canine kidney cells. A placebo-controlled, double blind study was carried out on a group of individuals living in an agricultural community (kibbutz) during an outbreak of influenza B/Panama in 1993. Fever, feeling of improvement, and complete cure were recorded during 6 days. Sera obtained in the acute and convalescent phases were tested for the presence of antibodies to influenza A, B, respiratory syncytial, and adenoviruses. Convalescent phase serologies showed higher mean and mean geometric hemagglutination inhibition (HI) titers to influenza B in the group treated with SAM than in the control group. A significant improvement of the symptoms, including fever, was seen in 93.3% of the cases in the SAM-treated group within 2 days,

whereas in the control group 91.7% of the patients showed an improvement within 6 days ( $p < 0.001$ ). A complete cure was achieved within 2 to 3 days in nearly 90% of the SAM-treated group and within at least 6 days in the placebo group ( $p < 0.001$ ). No satisfactory medication to cure influenza type A and B is available. Considering the efficacy of the extract in vitro on all strains of influenza virus tested, the clinical results, its low cost, and absence of side-effects, this preparation could offer a possibility for safe treatment for influenza A and B. [Zakay-Rones, Z., et al. Inhibition of several strains of influenza virus in vitro and reduction of symptoms by an elderberry extract (*Sambucus nigra*) during an outbreak of influenza in Panama. *Journal of Alternative and Complementary Medicine*. 1(4):361-369, 1995]

Elderberry has been used in folk medicine for centuries to treat influenza, colds and sinusitis, and has been reported to have antiviral activity against influenza and herpes simplex. The authors investigated the efficacy and safety of oral elderberry syrup for

**THESE EXTRACTS MAY ALSO ADDED TO A CUP OF GREEN TEA SEVERAL TIMES DAILY TO AID IN THE RELIEF OF FLU SYMPTOMS AND MUCH RESEARCH HAS BEEN DONE TO SHOW THE BENEFITS AND PERHAPS EVEN ELIMINATE THE FLU SYMPTOM COMPLETELY.**

treating influenza A and B infections. Sixty patients (aged 18-54 years) suffering from influenza-like symptoms for 48 h or less were enrolled in this randomized, double-blind, placebo-controlled study during the influenza season of 1999-2000 in Norway. Patients received 15 ml of elderberry or placebo syrup four times a day for 5 days, and recorded their symptoms using a visual analogue scale. Symptoms were relieved on average 4 days earlier and use of rescue medication was significantly less in those receiving elderberry extract compared with placebo. Elderberry extract seems to offer an efficient, safe and cost-effective treatment for influenza. These findings need to be confirmed in a larger study. [Zakay-Rones, Z., et al. Randomized study of the efficacy and safety of oral elderberry extract in the treatment of influenza A and B virus infections. *J Int Med Res*. 32(2):132-140, 2004], [Department of Virology, Hebrew University-Hadassah Medical School, Jerusalem, Israel]

### American Ginseng

The objective of this study was to compare a proprietary extract of American ginseng, CVT-E002, with placebo in preventing acute respiratory illness (ARI) in an institutional setting during the influenza season. Two randomized, double-blind, placebo-controlled trials conducted late in the 2000 (8 week) and 2000-2001 (12 week) influenza seasons were undertaken in a long-term care setting that included nursing home and assisted living at three sites. Participants were 89 (2000) and 109 (2000-2001) enrolled subjects, average age 81 and 83.5, respectively; 74% women. Approximately 90% had received influenza vaccine in each of the 2 years. The participants received oral twice-daily administration of a

proprietary ginseng extract, CVT-E002, 200 mg or placebo. ARI was defined as two new respiratory symptoms or one with a constitutional symptom. Confirmation of viral ARI was by culture (influenza or respiratory syncytial virus (RSV)) or serology for influenza. Laboratory safety monitoring was done at 0, 4, and 8 or 12 weeks. An intent-to-treat analysis of pooled data corrected for drug exposure time showed that the incidence of laboratory-confirmed influenza illness (LCII) was greater in placebo- (7 cases/101 subjects) than CVT-E002-treated (1/97) groups (odds ratio (OR)=7.73,  $P=.033$ ). Combined data for LCII and RSV illness were also greater in placebo- (9/101) than CVT-E002-treated (1/97) groups (OR=10.50,  $P=.009$ ), for an overall 89% relative risk reduction of ARI in the CVT-E002 group. CVT-E002 was shown to be safe, well tolerated, and potentially effective for preventing ARI due to influenza and RSV.



[McElhaney, J. E., et al. A placebo-controlled trial of a proprietary extract of North American Ginseng (CVT-E002) to prevent acute respiratory illness in institutionalized older adults. *J Am Geriatr Soc*. 52(1):13-19, 2004], [Eastern Virginia Medical School, Norfolk, Virginia Riverside Regional Convalescent Center, Newport News, Virginia CV Technologies, Inc., Edmonton, Alberta, Canada]

### Licorice Root

The antiviral effect of glycyrrhizin (GR), an active component of licorice roots, was investigated in mice infected with influenza virus A2 (H2N2). When mice that had been exposed to ten x 50% lethal doses of the virus were treated intraperitoneally with 10 mg of glycyrrhizin per kg of body weight 1 day before infection and 1 and 4 days post infection, all of the mice survived over the 21-day experimental period. At the end of this period, the mean survival time (in days) for control mice treated with saline was 10.5 days, and there were no survivors. The grade of pulmonary consolidations and the virus titers in the lung tissues of infected mice treated with GR were significantly lower than those in the lung tissues of infected mice treated with saline. GR did not show any effects on the viability or replication of influenza virus A2 in vitro. When splenic T cells from GR-treated mice were adoptively transferred to mice exposed to influenza virus, 100% of the recipients survived, compared to 0% survival for recipient mice inoculated with naive T cells or splenic B cells and macrophages from GR-treated mice. The antiviral activities of glycyrrhizin on



influenza virus infection in mice were not demonstrated when it was administered to infected mice in combination with anti-gamma interferon (anti-IFN-gamma) monoclonal antibody. These results suggest that glycyrrhizin may protect mice exposed to a lethal amount of influenza virus through the stimulation of interferon-gamma production by T cells, because T cells have been shown to be producer cells of IFN-gamma stimulated with the compound. [Utsunomiya, T., et al. Glycyrrhizin, an active component of licorice roots, reduces morbidity and mortality of mice infected with lethal doses of influenza virus. *Antimicrobial Agents Chemother.* 41(3):551-556, 1997]



The authors investigated the mechanism by which glycyrrhizin (GL), the main active component of licorice roots, protects cells from infection with influenza A virus (IAV). The authors found that GL treatment leads to a clear reduction in the number of IAV-infected human lung cells as well as a reduction in the CCID50 titer by 90%. The antiviral effect, however, was limited to on or two virus replication cycles. Analysis of different GL treatment protocols suggested that the antiviral effect of GL was limited to an early step in the virus replication cycle. A direct inhibitory action of GL on IAV particles could be excluded and GL did not interact with the virus receptor either. The antiviral effect of GL was abolished by treatment 1h after virus infection, whereas pre-treatment and treatment during and after virus adsorption led to a reduction in the cytopathic effect, reduced viral RNA within the cells and in the cell supernatants, and reduced viral hemagglutination titers. Detailed virus uptake analyses unambiguously demonstrated reduced virus uptake in various GL-treated cells. These observations lead to the conclusion, that the antiviral activity of GL is mediated by an interaction with the cell membrane which most likely results in reduced endocytotic activity and hence reduced virus uptake inside the cells. These insights might help in the design of structurally related compounds leading to potent anti-influenza therapeutics. [Wolkerstorfer, A., et al. Glycyrrhizin inhibits influenza A virus uptake into the cell. *Antiviral Research.* 2009], [Onepharm Research & Development GmbH, Vienna, Austria]

**CAUTION:** The compounds found in licorice root cause the body to eliminate potassium, for this reason a potassium supplement is recommended during its use.

## Green Tea

The authors set their attention on the activity of the endonuclease of the A-type virus that depends on RNA polymerase and investigated whether green tea catechins inhibit this activity directly. Initially they performed endonuclease assays through the incubation of the influenza's PA subunit—of three principal subunits that comprise polymerase, PA is the one most closely associated with replication - using four different concentrations of EGCG. From this analysis they found that EGCG was the best inhibitor of the endonuclease

activity of the PA N-terminal domain† at the highest dosage used (10 µM). The researchers report that this is the first demonstration of the inhibition of influenza A virus endonuclease by a green tea catechin. [Green, R. H. Inhibition of multiplication of influenza virus by extracts of tea. *Proc Soc Exp Biol Med.* 71(1):84, 1949], [Kuzuhara, T., et al. Green tea catechins inhibit the endonuclease activity of influenza A virus RNA polymerase. *PLoS Currents Influenza.* 2009 Oct 13:RRN1052]

(-)-Epigallocatechin gallate (EGCg) and theaflavin digallate (TF3) (1-10 microM) inhibited the infectivity of both influenza A virus and influenza B virus in Madin-Darby canine kidney (MDCK) cells in vitro. Study by electron microscope revealed that EGCg and TF3 (1 mM) agglutinated influenza viruses as well as did antibody, and that they prevented the viruses from adsorbing to MDCK cells. EGCg and TF3 more weakly inhibited adsorption of the viruses to MDCK cells. EGCg and TF3 (1-16 microM) also inhibited haemagglutination by influenza viruses. These findings suggest that tea polyphenols bind to the haemagglutinin of influenza virus, inhibit its adsorption to MDCK cells, and thus block its infectivity. [Nakayama, M., et al. Inhibition of the infectivity of influenza virus by tea polyphenols. *Antiviral Res.* 21:289-299, 1993]



Polyphenolic compound catechins ((-)-epigallocatechin gallate (EGCG), (-)-epicatechin gallate (ECG) and (-)-epigallocatechin (EGC)) from green tea were evaluated for their ability to inhibit influenza virus replication in cell culture and for potentially direct virucidal effect. Among the test compounds, the EGCG and ECG were found to be potent inhibitors of influenza virus replication in MDCK cell culture and this effect was observed in all influenza virus subtypes tested, including A/H1N1, A/H3N2 and B virus. The 50% effective inhibition concentration (EC(50)) of EGCG, ECG, and EGC for influenza A virus were 22-28, 22-40 and 309-318µM, respectively. EGCG and ECG exhibited hemagglutination inhibition activity, EGCG being more effective. However, the sensitivity in hemagglutination inhibition was widely different among three different subtypes of influenza viruses tested. Quantitative RT-PCR analysis revealed that, at high concentration, EGCG and ECG also

suppressed viral RNA synthesis in MDCK cells whereas EGC failed to show similar effect. Similarly, EGCG and ECG inhibited the neuraminidase activity more effectively than the EGC. The results show that the 3-galloyl group of catechin skeleton plays an important role on the observed antiviral activity, whereas the 5'-OH at the trihydroxy benzyl moiety at 2-position plays a minor role. The results, along with the HA type-specific effect, suggest that the antiviral effect of catechins on influenza virus is mediated not only by specific interaction with HA, but altering the physical properties of viral membrane. [Song, J. M., et al. Antiviral effect of catechins in green tea on influenza virus. *Antiviral Res.* 2005], [Department of Biotechnology, College of Engineering, Yonsei University, Seoul, South Korea]

The objective of this study was to evaluate the effects of gargling tea catechin extracts on the prevention of influenza infection in elderly nursing home residents. This was a prospective study conducted for 3 months from January to March 2005. The setting was a nursing home in Japan. A total of 124 elderly residents of at least 65 years of age were enrolled in the study. 76 residents (83 +/-8.2 years, mean +/-standard deviation; 24 men, 52 women) gargled with tea catechin extract (catechin group) and were compared with 48 age- and sex-matched residents who gargled without tea catechin extracts (control group). All the residents were vaccinated with an influenza vaccine until early December 2004. The catechin group gargled with the tea catechin extract solution (200 mcg/mL catechins, 60% of catechins comprise epigallocatechin gallate). The control group gargled without the catechin extract solution. In both groups, gargling was performed three times daily for 3 months. The incidence of influenza infection during the study was compared between the two groups. A safety evaluation was conducted to observe adverse events during the study. The incidence of influenza infection was significantly lower in the catechin group (1.3%, one resident) than in the control group (10%, five residents) calculated by multivariate logistic regression analysis ( $p = 0.028$ ; odds ratio, 15.711; 95% confidence interval, 1.883-399.658). No adverse events, such as respiratory tract irritation, an obstruction, or allergic bronchial spasm, were observed during the study. This prospective study demonstrating the effect of catechin gargling on the prevention of influenza infection in the elderly is the first to be reported in the literature. Further randomized, controlled studies are needed to confirm the effects of catechin gargling on the prevention of influenza infection. [Yamada, H., et al. Gargling with tea catechin extracts for the prevention of influenza infection in elderly nursing home residents: a prospective clinical study. *J Altern Complement Med.* 12(7):669-672, 2006], [Division of Drug Evaluation & Informatics, School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan]

This same formulation is very often found to be equally effective against the more common cold viruses.



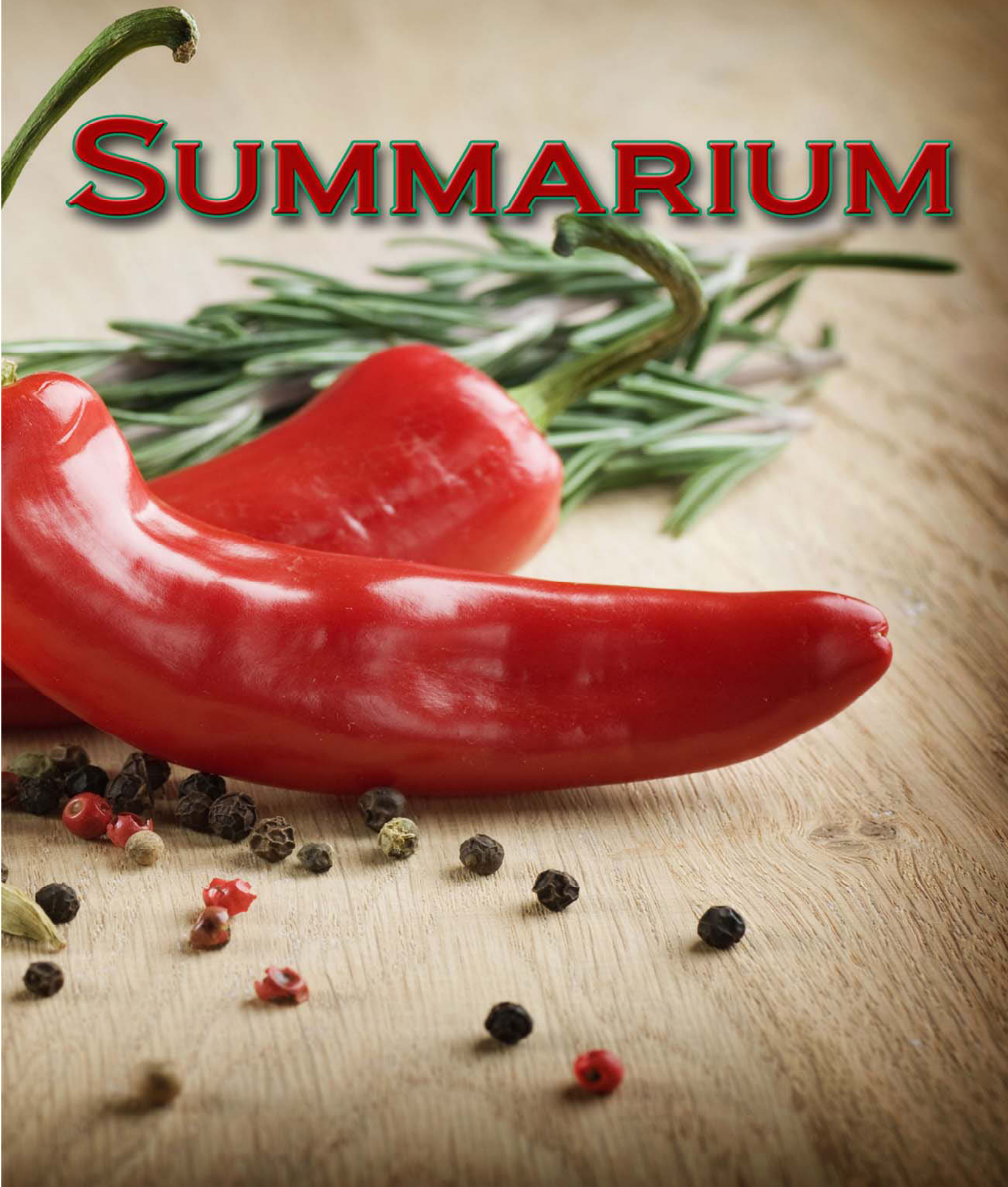
**MORE EXTENSIVE COMBINATIONS AS WELL AS RECIPES THAT WILL INCLUDE OTHER NATURAL SUBSTANCES OFTEN USED IN HERBAL MEDICINE, SUCH AS HONEY, OTHER TEAS, VITAMINS AND PROBIOTICS WILL ALSO BE INCLUDED IN OUR UPCOMING BOOK OF HERBAL REMEDIES.**







# SUMMARIUM





# GLOSSARY

**ABORTIFACIENT** An agent that induces abortion

Acidulant a substance which causes a change toward acidity.

**ADENOSINE TRIPHOSPHATE** (ATP) is a compound found in all cells. When specific bonds within this chemical are broken, energy is produced.

**ADJUVANT** A substance which is added to increase the action of the main ingredient, synergist.

**ALANINE** Antioxidant, cancer-preventive, oxidant.

**ALKALOIDS** A diverse group of compounds with alkaline properties.

**ALOE-EMODIN** Antiherpetic, antileukemic, antiseptic, antitubercular, antitumor, antiviral, bactericide, cathartic, cytotoxic, genotoxic, pesticide, purgative, termitifuge, viricide.

**ALOIN A AND B** A mixture of active principles, chiefly barbaloin, extracted from aloes; used as a purgative to relieve temporary constipation and/or chronic constipation.

**ALOINSIDE** A mixture of active principles, chiefly barbaloin, extracted from aloes; used as a purgative to relieve temporary constipation and/or chronic constipation.

**ALPHA-AMYRIN** Antitumor, cytotoxic.

**AMPHIGLYCEMIC** Stabilizes blood sugar levels.

**AMYLASE** An enzyme that catalyses the breakdown of starch into sugars.

**ANALGESIC** Substances which relieve all types of moderate pain. Herbs with this property include Feverfew, Elder, White Willow, and Balm.

**ANDROGENIC** An agent having a masculinizing effect.

**ANODYNE** Substances which relieve severe types of pain. These substances are very powerful and should be used judiciously. Included in this group are Valerian, Mistletoe and Marijuana.

**ANTHELMINTIC (VERMIFUGE)** Substances that kill and help expel intestinal and stomach worms. Herbs with this property include Garlic, Wormwood, Mugwort, Onion, and Black Walnut.

**ANTIASTHMATIC AND BRONCHIAL DILATOR** Substance that relieves bronchial spasms for both asthma, and bronchitis; herbs with this property include Coltsfoot, Ma Huang, Valerian, Ephedra, and Mormon.

**ANTHOCYANINA** A group of floral pigments ranging from red to blue; soluble in water and alcohol but not in ether.

**ANTHRAQUINONE** An organic compound whose structure serves as a basic building block for a number of naturally occurring plant pigments.

**ANTIBIOTIC (ANTIBACTERIAL)** Substances that kill and stop the growth of bacteria. Herbs with this property include Echinacea, Garlic, Chaparral and Goldenseal.

**ANTIAPHORETIC** Substances which stop excessive sweating. Herbs with this property include Horehound, Sage, Valerian, Walnut, and Oak.

**ANTIPYRETIC** Substances that lowers or prevents fevers, infections or inflammations. Herbs with this property include Feverfew, Catnip and Yarrow.

**ANTIRHEUMATIC** Substances which alleviates rheumatic symptoms such as stiff and painful joints and muscles. Herbs with these properties include Motherwort, Nettle and Black

Cohosh.

**ANTISCLEROTIC** Substances which reduce the amount of fat carried in the blood and help reverse or prevent arterial sclerotic changes. Herbs with these properties include Garlic, Hawthorn, Mistletoe and Aloe.

**ANTISEPTIC** Substances which kills bacteria and prevents its growth. These are used topically for the treatment of wounds, cuts, sores and stings. Herbs with these properties include Yunan Pao, Calendula, Garlic Oil and Goldenseal.

**ANTISPASMODIC** Substances which prevent or reduce muscle spasticity. Many herbal combinations which are prepared for pain relief will contain one or more herbs with these properties. Herbs with these characteristics include Valerian, Black Cohosh, Scullcap, Dong Quai and Lobelia.

**ANTITUMOR** Substances which have been shown to inhibit tumor growth or kill tumorous cells. Herbs with these properties include Chaparral, Mistletoe, Red Clover, Astragalus and Suma.

**ANTITUSSIVE** Substances that relieve or prevent coughing. The most successful of these substances usually contain a high mucilage content to assist in soothing the mucous membranes at the same time. Herbs with these properties include Marshmallow, Anise, Mullein and Licorice.

**ANTIVIRAL** Substances which kill or help increase the body's immunity to viruses. Herbs with these properties include Echinacea, Garlic and St. John's Wort.

**APERIENT** Substances which are very mild in their laxative action. Herbs in this group include most bitter herbs in general, Yellow Dock and Cascara sagrada.

**APIGENIN** Antiaggregant, antiallergic, antiarrhythmic, antiestrogenic, antihistaminic, anti-inflammatory, antimutagenic, antioxidant, bactericide, calcium-blocker(?), cancer-preventive, choleric, diuretic, hypotensive, musculotropic, myorelaxant, modulation-signal, pesticide, sedative, spasmolytic, vasodilator.

**ARGININE** Acts as antidiabetic, antiencephalopathic, antihepatic, antiinfertility, antioxidant, diuretic and hypoammonemic.

**AROMATIC** Substances which have a fragrant smell and usually a pleasant taste. They are antiseptic, and often used to give flavors to both medicines and foods. Herbs with this quality include Chamomile, Anise, and Licorice.

Arteriodilator increases or causes dilation of the arteries

**ASCORBIC ACID** Created in a laboratory and is an artificial, reduced form of natural vitamin C.

**ASPARAGINE** Antisickling, diuretic. A non essential amino acid which occurs in protein. It is also a diuretic.

**ASPARTIC-ACID** Antimorphinic, neuroexcitant, roborant.

**ASTRINGENT** Substances that constrict blood vessels, thereby reducing the blood flow and at the same time tend to inhibit mucous secretions and tighten the skin. Herbs with these properties include Bilberry, Burdock, Comfrey, Sage, Walnut and St. John's Wort.

**BACTERICIDE** A substance which kills bacteria.

**BETA-CAROTENE** A strongly-colored red-orange pigment abundant in plants and fruits.

**BETA-SITOSTEROL** One of several phytosterols (plant sterols) with chemical structures similar to that of cholesterol. Phytosterols increase fecal excretion of cholesterol by interfering

with the absorption of exogenous and the reabsorption of endogenous cholesterol. They are used in the treatment of hypercholesterolemia.

**BIOTIN** A water-soluble B-complex vitamin (vitamin B7)

**BITTERS** Substances that stimulate the appetite by affecting the secretion of digestive juices. Herbs with this quality include Caraway, Peppermint, Blessed Thistle, and Gentian.

**BOLUS** Suppository used as an internal poultice in the vagina or rectum

**CALCIUM** An essential dietary element, with a normal blood calcium level being necessary for the maintenance of a normal heartbeat and the normal functioning of nerves and muscles. It also plays an important role in blood coagulation.

**CAMPHOR** A ketone; used as an antipruritic and anti-infective. It is also used in several pharmaceutical preparations.

**CARDIAC** Substances which affect heart action. They include very toxic cardiac glycosides and should be used only under medical supervision. Herbs with these properties include Foxglove and Hawthorn.

**CARMINATIVE** Substances that relieve flatulence, abdominal and bowel gas pain. Herbs with these properties include Fennel, Anise, Chamomile, Peppermint and Sage.

**CARYOPHYLLENE** A natural bicyclic sesquiterpene that is a constituent of many essential oils, especially clove oil.

**CATALASE** A common enzyme found in nearly all living organisms that are exposed to oxygen.

**CHOLAGOGUE** Substances which stimulate release of gall from the gall bladder and bile ducts into the duodenum. Herbs which have this property include Peppermint, Marjoram and Mullein.

**CHOLERETIC** Substances which stimulate bile production in the liver. Herbs with these properties include Barberry and Greater Burdock.

**CHOLINE** A water-soluble essential nutrient; included in the vitamin B complex. In experimental animals, lack of this factor causes fatty liver or hepatic cirrhosis; it prevents the fatty degenerative changes that frequently occur in pancreatectomized animals. Several different salts of choline are used in medicine. Choline is the basic constituent of lecithin and prevents the deposition of fats in the liver.

**CHROMIUM** A trace mineral that is found in very small amounts in the human body; important element in the metabolism of glucose into energy.

**CHRY SOPHANIC-ACID** (Chrysophanol) is an EGFR/mTOR pathway inhibitor, fungicide, pesticide, and spasmolytic.

**CINNAMIC-ACID** Obtained from oil of cinnamon and balsams.

**CITRIC ACID** An intermediary in the Krebs cycle. Citrate chelates calcium ions and prevents blood from clotting and is used as an anticoagulant for the storage of whole blood.

**COBALT** A metal utilized in medicine to treat the anemia of infection and renal disease. Its most important function is as a constituent of vitamin B<sub>12</sub>.

**COMPRESS** Cloth pad soaked in herbal extract and applied to the skin.

**COPPER** Essential component of various proteins, including ceruloplasmin, erythrocyte, cytochrome c oxidase, tyrosinase, etc.

**COUMARINS** Used widely as anticoagulants in the treatments of disorders in which there is unwanted clotting, such

as thrombophlebitis, pulmonary embolism, and certain cardiac conditions.

**CYCLOARTENOL** An important type of stanol found in plants; anti-inflammatory.

**CYSTINE** Amino acid; acts as an adjuvant and antihomocystinuric.

**DECOCTION** Water-based preparation made by finely grating or chopping the herb and simmering the mixture 5 to 20 minutes.

**DEMULCENT** Substances which soothe and moisten, usually with mucilage, mucous membrane inflammations found in the kidneys and bladder. Herbs with this property include Comfrey, Licorice, Marshmallow and Slippery Elm.

**DIAPHORETIC** Substances which increase or induces sweating. Herbs with this property include Greater Burdock and Mullein.

**DIURETIC** Substances that eliminate water from the body by increasing urine production. These herbs also tend to have an antiseptic effect on the urinary tract and often are used in the treatment of kidney stones and uroliths. Herbs with these properties include Bilberry, Goldenrod, Greater Burdock, Juniper and Parsley.

**EMETIC** Substances that induce vomiting. Herbs with this property include Lobelia, Licorice, Ipecac and Peppermint.

**EMMENAGOGUE** Substances which are used to assist or regulate menstruation. These substances often cause the menstruation to start early and with increased flow. They were often used for birth control by the Native Americans. These herbs should be avoided if pregnant. Herbs in this group include Black Cohosh and Mugwort.

**EMODIN** An anthraquinone found in certain plants including rhubarb and buckthorn.

**EMOLLIENT** These substances are used to soften, protect and soothe the skin. Herbs with these properties include Chickweed, Comfrey and Slippery Elm.

**ESSENTIAL OIL** Distillation of volatile oils derived from plants. Unlike fatty or fixed oils, they do not leave a permanent mark on paper. Essential oils primary constituents are complex mixtures of terpenoid substances. Exposed to air or light essential oils oxidize and become less effective. Medicinally, essential oils act as digestive tonics, antiseptics, carminatives, anthelmics, antirheumatics, rubefacients and anti-inflammatories. Many of the essential oils are used for flavoring and are also included in proprietary medicines. These include menthol, thymol and others.

**EXPECTORANT** Substances which promote the formation and expulsion of mucous from the airways. These herbs also tend to promote mucous formation and have an antiseptic effect on the airways as well. Herbs with these properties include Marshmallow, Mullein, Lungwort, Anise and Sage.

**FATS** Esters of glycerol with fatty acids attached, usually oleic, palmitic, or stearic acid.

**FEBRIFUGE** Substances which reduce fevers (Antipyretic). Herbs in this group include Feverfew and Honeysuckle.

**FERULIC-ACID** An abundant phenolic phytochemical found in plant cell wall components.

**FOLACIN** Folic-acid, vitamin B<sub>9</sub>.

**FORMIC ACID** Resembles acetic acid but is far more caustic to the skin. Used as food preservatives.

**FORMONONETIN** Isoflavone found in a number of plants and herbs like the red clover.



**FRUCTOSE** Fruit sugar; a ketohexose occurring in honey and many sweet fruits. Medically it is administered intravenously as a fluid and nutrient replenisher.

**GALACTAGOGUE** Substances which increase mothers milk production. Herbs with this property include Basil, Fennel, Fenugreek and Caraway.

**GALACTOSE** Type of sugar less sweet than glucose; forms mucic acid when oxidized with nitric acid, and has similar properties to fructose but is less sweet and less soluble.

**GERMANIUM** Mineral found in some plant-based foods.

**GLUCOSAMINE** An amino sugar and a prominent precursor in the biochemical synthesis of glycosylated proteins and lipids.

**GLUCOSE** A monosaccharide (simple sugar) also known as dextrose, it is the primary source of energy for all living organisms with its utilization being controlled by insulin.

**GLUTAMIC-ACID** An amino acid found in abundance in both plant and animal protein.

**GLYCINE** Arguably the most important inhibitory neurotransmitter in the brain and brainstem/spinal cord.

**GLYCOSIDES** Products of secondary metabolism in plants. When hydrolyzed they split into two parts, one of several sugars (glucose, fructose, etc.) which are the glycone component, and the non sugar (aglycone) component. Each glycoside is associated with a specific enzyme in the plant.

**GYNAECOLOGIC** Substances that affect the female reproductive system. Some relieve muscle spasms associated with menstruation, and others have a direct or indirect affect on the uterus and are used to check heavy menstrual bleeding or other irregularities. Herbs in this group include Motherwort, Chamomile and Vitex.

**HEMOSTATIC** Substances which control bleeding by causing vaso constriction. Herbs with these properties include Yunan Pao, Comfrey, Sage and Horsetail.

**HEPATIC** Substances which cleans the liver or restores liver functions. These herbs are used in the treatment of hepatitis, jaundice and cirrhosis. Herbs in this group include Milk Thistle, Barberry and Gentian.

**HISTIDINE** A nonessential amino acid in adults.

**HYPERTENSIVE** Substances which increase blood pressure. These should only be used with supervision by a qualified doctor. Herbs with these properties include Shepards Purse and Broom.

**HYPNOTIC** Substances which induce sleep. Herbs with these properties include Motherwort, Valerian, Vervain, Balm and Chamomile.

**HYPOLYCEMIC** Substances that reduce blood sugar levels. Diabetics should not use these without the professional guidance of a qualified health care practitioner. Herbs that have this property include Bilberry, Chicory, Burdock, Fenugreek and Stinging Nettle.

**HYPOTENSIVE** Substances which reduce blood pressure. These herbs should be monitored on a regular basis and used in conjunction with a healthy diet. They can be used along with prescription medications when professionally monitored. Herbs which have this property include Hawthorn, Garlic, Hop, Onion and Mistletoe.

**INOSITOL** A sugar-like vitamin of the B complex. It is concerned with the growth of yeast, promotes growth of several bacteria and is curative of mouse alopecia and may very well have lipotropic activity.

**IODINE** Non-metallic trace element essential in nutrition and is especially important in thyroid hormone synthesis, which in turn

regulates the metabolic rate of all cells.

**IRON** Essential constituent of hemoglobin, cytochrome and other components of respiratory enzyme systems. Its chief functions are transport of oxygen to the tissues (hemoglobin) and in cellular oxidation mechanisms.

**KAEMPFEROL** A natural flavonol, a type of flavonoid, that has been isolated from tea, broccoli, Delphinium, Witch-hazel, grapefruit, brussels sprouts, and apples.

**LAXATIVES** Substances which loosen the bowels and relieve constipation. Herbs with this quality include Barberry, Buckthorn, Dandelion, Psyllium Seed and Licorice.

**LEUCINE** An essential amino acid; antiencephalopathic.

**LIGNIN** A complex chemical compound most commonly derived from wood, and an integral part of the secondary cell walls of plants and some algae; anti-HIV, antidiarrheic, antiviral, bactericide, pesticide, viricide.

**LITHOTROPIC** Substances which dissolve and eliminates urinary and gall bladder stones. Herbs with this property include Parsley, Nettle, Dandelion, and Buchu.

**MAGNESIUM** Usually referred to as a "macromineral," which means that our food must provide us with hundreds of milligrams of magnesium every day; its salts are essential in nutrition, being required for the activity of many enzymes, especially those concerned with oxidative phosphorylation; deficiencies cause tetany, vasodilation, convulsions, tremors, depression and psychotic behavior.

**LINOLEIC ACID** Essential fatty acid (omega-6) used in the production of prostaglandins in the human body. It cannot be synthesized in the animal and must be obtained in the diet.

**LINOLENIC ACID** Unsaturated fatty acid that (omega-3) has three double bonds and is a nutrient essential to the formation of prostaglandins in the human body.

**MALIC ACID** An intermediate in the Krebs cycle. Its actions are similar to that of tartaric acid and it is permitted as a food additive.

**MANGANESE** A trace mineral that participates in many enzyme systems in the body; appears as salts in the body and acts as the activator of liver arginase and other enzymes.

**MUCILAGE** A thick, gluey substance produced by most plants and some microorganisms.

**NERVINE** Substance which calms, quiets and nourishes the nervous system. Herbs with these qualities include Valerian, Scullcap and Lobelia.

**NIACIN** B vitamin that is antiacrodynic, antiamblyopic, antianginal, antidermatitic, antidysphagic, antineuralgic, antipellagic, antiscotomic, antivertigo, cancer-preventive, hepatoprotective, hypoglycemic, sedative, serotonergic, vasodilator.

**OLEANOLIC-ACID** (aka oleanic acid); a naturally occurring triterpenoid, widely distributed in food and medicinal plants, related to betulinic acid; an abortifacient, anticariogenic, antifertility, antihepatotoxic, antiinflammatory, antisarcomic, cancer preventive, cardiogenic.

**OLEIC ACID** Organic fatty acid (omega-9) used in the preparation of oleates and lotions.

**OXYTOCIC** Substances which stimulate uterine contractions. Herbs with this property include Black Cohosh, Squaw Vine and Motherwort.

**PABA** P-aminobenzoic acid, a member of the B complex group; used in the treatment of some collagen diseases; allergenic, antiarthritic, antirickettsial, antithyroid, antitubercular,

bactericide, detoxicant, pesticide, sunscreen.

**PALMITIC ACID** One of the most prevalent saturated fatty acids in body lipids.

**PANTOTHENIC ACID** (aka pantothenate or vitamin B5); a water-soluble vitamin that is a constituent of coenzyme A. Pantothenic acid plays an important role in the production of adrenal hormones and antibodies, as well as in the utilization of vitamins which are used to convert fats, carbohydrates and proteins into energy. This vitamin is also needed to produce steroids in the adrenal gland.

**PARASITICIDE** Substance which kills and removes parasites from the digestive tract or skin. Herbs with this property include Wormwood, Chaparral, Cloves and Garlic.

**PARTURIENT** Substance which helps prepare the uterus for childbirth during the last trimester of pregnancy. Herbs with this property include Raspberry, Squaw vine, and Black Cohosh. These herbs should not be used without qualified medical supervision during pregnancy.

**PECTIN** A homosaccharidic polymer of sugar acids of fruit that forms gels with sugar at the proper pH. It is also used as the protective component of various formulations used for the treatment of diarrhea and as a suspending agent in pharmaceutical preparations.

**PHENYLALANINE** An essential amino acid; anti-ADD, antidepressant, antiparkinsonian, antisickling, antiviral, monoamine-precursor, tremorigenic.

**PHOSPHORUS** Antiosteoporotic, immunostimulant, osteogenic. An essential element in the diet, and present in some form in almost all metabolic processes. Therapeutically it was once used in the treatment of rickets, osteomalacia, scrofula and tuberculosis.

**POTASSIUM** Antiarrhythmic, antidepressant, antifatigue, antihypertensive, cardiotoxic, spasmolytic. The chief cation of muscle and most other cells. Formerly used as a diuretic and expectorant.

**POULTICE** A fresh mash of the herb, wrapped in cotton or gauze, then applied directly to the affected area.

**PROBIOTIC** Substances which enhance the body's own ability to fight diseases. These substances usually stimulate the production of interferon to fight virus infections, or increase the body's production of white blood cells to aid in fighting infection. Herbs with these properties include Echinacea, Astragalus and St. John's Wort.

**PROTEIN** The principle constituents of the protoplasm of all cells. They serve as enzymes, hormones, immunoglobulin and structural elements and are involved in oxygen transport, electron transport, and other activities throughout the body.

**PURGATIVE** Substances which act as a very strong laxative. Herbs in this group include Rhubarb and Mandrake.

**QUERCETIN** A flavonol; plant-derived flavonoid found in fruits, vegetables, leaves and grains.

**QUINIC-ACID** A sugar compound found in many different plants, such as tobacco leaves, carrot leaves, apples, peaches, pears, plums, and vegetables.

**REJUVENATIVE** Substances which are said to reduce the effects of aging, such as loss of strength, endurance, and general well being. Herbs with these properties include American Ginseng, Licorice, Yunnan Pao, Fo-Ti and Dong Quai.

**RESIN** A mixture of carboxylic acids, essential oils and terpenes occurring in certain plants.

**RIBOFLAVIN** The heat stable factor of the vitamin B

complex. Riboflavin is a water soluble vitamin which serves as a component of two coenzymes (FAD and FMN) which function as oxygen carriers in oxidation-reduction processes.

**RUBEFACIENT** Substances which increase the flow of blood to the skin. These herbs are used primarily for aches and sprains as well as arthritis and rheumatism. Herbs in this group include Black Pepper, Cayenne and Mustard.

**SALVE** Ointment made by bringing dried herbs to a simmer for 30 minutes, straining the mixture, adding an equal amount of olive or safflower oil, then simmering again until all the water has evaporated and only the oil is left.

**SAPONINS** A group of glycosides widely distributed in the plant world. They are characterized by their property of forming a foam when their watery solutions are shaken and by their ability to dissolve red blood cells even in high dilutions.

**SELENIUM** An essential mineral, being a constituent in the enzyme glutathione peroxidase, and closely associated with vitamin E. Deficiency results in cardiomyopathy.

**SEDATIVE** Substances that soothe and calm. These herbs are used to relieve anxiety and strain. Herbs in this group include Balm, Chamomile, Heather, Hop, Scullcap and Valerian.

**SIALAGOGUE** Substances which increase the flow of saliva. An example of this type of herb is Echinacea.

**SILICON** Antiarteriosclerotic. A non metallic element occurring in nature as silica.

**SODIUM** Provides the cation of the extracellular body fluids. Sodium salts are the most widely used salts in medicine, such as: s. acetate, s. acid phosphate, s. alginate etc.

**STARCH** Any of a group of polysaccharides of the general formula (C<sub>6</sub>H<sub>10</sub>O<sub>5</sub>). It is the main form of energy reserve for plants, (carbohydrates).

**STIGMASTEROL** Antihepatotoxic, antiviral, artemicide, cancer-preventive, estrogenic, ovulant, sedative, viricide. An unsaturated plant sterol occurring in physostigma, cacao butter, soybean oil and elsewhere. It is also an important starting material for industrial synthesis of steroid hormones.

**STIMULANT** Substances which stimulate the circulatory and respiratory systems. Herbs in this category include Cayenne, Ginger, Cinnamon and Mormon.

**STOMACHIC** Substances which aid in the relief of stomach disorders. They are sometimes described as digestive tonics. Herbs with these properties include Hop, Balm, Blackberry, Blessed Thistle and Peppermint.

**SUCROSE** Table sugar; a disaccharide which is used as the basis for many pharmaceutical preparations. By the action of certain enzymes it is converted to fructose and dextrose and is often used as a sweetening agent.

**SULFUR** Occurs in protein, being a constituent of the amino acids cysteine and methionone. Sulfur is a laxative and diaphoretic and is used in the treatment of diseases of the skin. Sulfur has been traditionally used in the treatment of gout, rheumatism and bronchitis.

**TANNINS** Compounds that can coagulate proteins, alkaloids, and heavy metals. Used as an astringent and in the treatment of diarrhea.

**TARTARIC ACID** Its salts, tartrates, are used in food preparations and as cathartics.

**TERPENES** Hydrocarbons derived from essential oils

**THIAMIN** Enhances the circulatory system as well as production of hydrochloric acid; necessary for blood formation and required for normal tonus of the stomach, intestines and



heart and has been shown to directly affect growth and learning disorders.

**TIGLIC ACID** An unsaturated fatty acid.

**TINCTURES** Concentrated solutions of herbal extracts in an alcohol base.

**TRYPTOPHAN** Amino acid which is essential for proper growth in infants and nitrogen equilibrium in adults. It is also the precursor of serotonin. Serotonin is produced enzymatically from tryptophan by hydroxylation. Serotonin is a vasoconstrictor, inhibits gastric secretion, stimulates smooth muscle and serves as a central neurotransmitter.

**URSOLIC ACID** A triterpene found in the waxlike coating on fruits and leaves.

**VANILLIC ACID** A benzoic acid derivative used as a flavoring acid.

**VASODILATOR** An agent that causes dilation of the blood vessels.

**VERMIFUGE** Substances which kill and expel intestinal and stomach parasites. Herbs with these properties include Wormwood, Garlic, Cloves and Black Walnut Bark.

**VIRICIDE** Substance or agent which kills viruses.

**VOLATILE OIL** Act as digestive tonics, antiseptics, carminatives, anthelmics, antirheumatics, rubefacients and anti-inflammatories. Many of the essential oils are used for flavoring and are also included in proprietary medicines. These include menthol, thymol and others.

**VULNERARIES** Substances that reduce inflammation and promote healing of wounds and skin disorders. Herbs in this group include Comfrey, Greater Burdock, Marshmallow, Horsetail and Lady's Mantle.

**ZINC** An essential mineral necessary in trace amounts in the body. It is essential in the formation of many enzymes and plays an important role in protein synthesis and cell division.



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# CONCLUSION

This book was written as an explanatory scientific analysis of why and how herbs work as medicinal plants. It lists the primary phytochemical, (chemical), constituents that have primary mechanisms of action that account for their effectiveness. **It also demonstrates why Big Pharmaceutical companies have spent so much time in the development of synthetic copies of these chemicals in order to patent them.**

As an example of Big Pharma's influence in the use of herbal medicine and their ongoing attempts to have it taken away as a viable alternative to their drugs, I feel it is important to demonstrate their diverse influence with a few examples. Though Wikipedia is far from the most reliable source, the description of Taxol and its origins are actually very close to what is taught in American Medical Schools. Taxol is a phytochemical taken from the Yew tree; it also is marketed as paclitaxel, and under the trade name Abraxane.

## Quote from Wikipedia:

*Paclitaxel is a mitotic inhibitor used in cancer chemotherapy. It was discovered in a U.S. National Cancer Institute program at the Research Triangle Institute in 1967 when Monroe E. Wall and Mansukh C. Wani isolated it from the bark of the Pacific yew tree, *Taxus brevifolia* and named it Taxol. When it was developed commercially by Bristol-Myers Squibb (BMS) the generic name was changed to paclitaxel and the BMS compound is sold under the trademark TAXOL. In this formulation, paclitaxel is dissolved in Cremophor EL and ethanol, as a delivery agent. A newer formulation, in which paclitaxel is bound to albumin, is sold under the trademark Abraxane. Paclitaxel is now used to treat patients with lung, ovarian, breast cancer, head and neck cancer, and advanced forms of Kaposi's sarcoma. Paclitaxel is also used for the prevention of restenosis. Paclitaxel stabilizes microtubules and as a result, interferes with the normal breakdown of microtubules during cell division. Together with docetaxel, it forms the drug category of the taxanes. It was the subject of a notable total synthesis by Robert A. Holton.*

*Side effects: Common side effects include nausea and vomiting, loss of appetite, change in taste, thinned or brittle hair, and pain in the joints of the arms or legs lasting two to three days, changes in the color of the nails, and tingling in the hands or toes. More serious side effects such as unusual bruising or bleeding, pain/redness/swelling at the injection site, change in normal bowel habits for more than two days, fever, chills, cough, sore throat, difficulty swallowing, dizziness, shortness of breath, severe exhaustion, skin rash, facial flushing, female infertility by ovarian damage[38] and chest pain can also occur. A number of these side effects are associated with the excipient used, Cremophor EL, a polyoxyethylated castor oil. Allergies to drugs such as cyclosporine, teniposide and drugs containing polyoxyethylated castor oil may indicate increased risk of adverse reactions to paclitaxel.[39] Dexamethasone is given prior to beginning paclitaxel treatment to mitigate some of the side effects. Leuprolide, a GnRH analog may prevent ovarian damage, according to mice studies.*

The truth of the matter is that the yew tree was used in Native American medicine for at least 2000 years prior to the Europeans arrival to these shores. It was always used in conjunction with other herbs that mitigated the possible harmful side effects and with other herbs that would increase its positive actions against malignancies and limit its harm. In the form of the entire bark of the tree, many constituents actually



mitigate harmful effects themselves. **This is an example of Big Pharma not having trained scientists that could determine the herbal synergy needed to make this a safe and effective medicine.**

Another prime example is in the therapeutic use of Cannabis. Native Americans have been using cannabis medicinally for at least 3,000 years. It was found in the grave of a mother suffering from a breach birth to ease her pain and attempt to relax her muscles. Unfortunately she died; but the long term use as a medicinal plant became confirmed by this grave site. Native Americans recognized it for its ability to stimulate the appetite, sedate the central nervous system, reduce pain, and alleviate nausea. Smoking of the leaves was used to alleviate bronchial spasms of asthma, bronchitis and to loosen phlegm. It was also used in a form of crushed buds of the plant with the seeds. This was added to the food in order to take better advantage of all of its actual constituents which included the plant chemicals found in the seeds. These included fatty Acids which comprise 35% of the total weight of Hemp Seeds. These fatty acids are made up of Omega-6, Gamma-Linolenic Acid, Linoleic Acid, Omega-3, Alpha-Linolenic Acid, Stearidonic Acid, Oleic Acid, Palmitic Acid, Stearic Acid, as well as Chlorophyll. All of these constituents contributed to the effectiveness of the entire herb.

In more recent times, the cannabinoids it contains have been synthesized and put into tablet form to reduce nausea induced by chemotherapy drugs and increase the appetite of AIDS patients. It has also been found to be one of the most effective treatments for glaucoma due to its ability to reduce intraocular pressure and has had these constituents put into eye drops.

**Only Big Pharma would be naïve enough to put a synthetic medicine into tablet form to treat chemotherapy induced nausea in which the patients are often not even able to keep water down.**

This is the type of progress we see when the physician's and people's uses of medicine are limited to the exclusive control of large pharmaceutical companies that are able to pay enough politicians to pass restrictive laws, control the FDA and control the international approval of what can and cannot be used such as through the World Health Organization.

Many times you will hear from physicians that herbal medicine is useless. If that were true, 85% of the medicines they used that were derived from the synthetic copies of these herbal constituents must by definition, be useless. **They cannot have it both ways.** The argument from Big Pharma has always been that their synthetics are cleaner, more consistent in dosage of the active they are copying. After studying and teaching herbal medicine for well over half a century I can say the following with absolute certainty. A master herbalist is very capable of keeping consistency in their product, knows the importance of the synergistic effect of all of the phytochemicals in herbs and uses them for the patients benefit, and is also aware of treating cause, not just symptoms of disease.

While studying allopathic, (conventional) medicine we are taught that the gold standard of tests for medicine is the double blind, placebo controlled testing protocol. We are also required to take at least basic statistics. After years of seeing first hand and knowing how statistics are used to manipulate the findings I have come to believe much more in empirical findings in medicine. Empirical data originates in or is based on observation or experience. Let me give a verifiable and well known fact to demonstrate why I lean in this direction for finding the truth in effective medicine. Perhaps the most recent well documented use of homeopathy, which is a branch of Naturopathic medicine which uses very diluted plant based chemicals in very small amounts was directly compared to the allopathic approach to medicine in a major epidemic during the Influenza Pandemic of 1918. The Journal of the American Institute for Homeopathy, May, 1921, had a long article about the use of homeopathy in the flu epidemic. Dr. T A McCann, from Dayton, Ohio, reported that 24,000 cases of flu treated allopathically had a mortality rate of 28.2% while 26,000 cases of flu treated homeopathically had a mortality rate of 1.05%. This last figure was supported by Dean W.A. Pearson of Philadelphia (Hahnemann College) who collected 26,795 cases of flu treated with homeopathy with the above result. **This is empirical data, but is totally irrefutable.** Which hospital or practice would you have chosen, had it been occurring now and you had this information? The answer is obvious. You would have gone to a Naturopathic physician without question or hesitation.

The purpose of this book has been to better educate the public on the validity of plant chemicals use in herbal medicine. It would be unfair not to explain why it is not currently used as the primary tool against disease instead of pharmaceutical company drugs.

Unfortunately the AMA and large pharmaceutical companies have almost totally taken this most important choice for a healthier form of medicine away from you. **They have done this by actually making it a felony to practice Naturopathic medicine in many states and a misdemeanor in many others.** The

large pharmaceutical companies made sure that it became almost impossible for Naturopathic medicine to proceed by simply deeming that any herbal medicine that was shown to be effective treatment was immediately given drug status, which meant natural treatments that had been shown to be effective for thousands of years became products kept from the use of the public by our Government. Without the producer having a billion dollars to put into the currently required FDA approval process, they could not be sold in the USA. Since the FDA board that decides which medications are approved, even effective treatments for serious disease such as cancer or AIDS would most certainly never be approved due its effect on Big Pharma's profit margin on two of their largest income sources. Thus we lost a most important part of our inalienable rights including the first, "The Right to Life, Liberty and the Pursuit of Happiness". **All of which are prevented with the simple act of taking away our choices in health care.** Not only that, but we are also losing the right to choose Naturopathic Medicine that emphasizes finding and treating cause of disease, to the allopathic model of treating symptoms with pharmaceuticals watching the adverse side effects which will require further pharmaceutical medication.

I have been most fortunate to have spent almost my entire life being taught, seeing and practicing each form of medicine available. I have also been fortunate enough to have performed numerous autopsies which cannot hide the truth. And the absolute truth is that most forms of medicine are needed to insure the welfare of the public, drive down healthcare costs and most importantly, to move medicine forward. Each of these forms of medicine has much to teach and learn from each other. This should be *encouraged*, **not punished**.

Many years ago, a rather substantial orthopedic department partner approached me about bringing together a totally independent group of physicians and naturopaths in order to form an integrative medicine practice with all practical disciplines covered. I was to teach the major portion of this integration and exchange of knowledge. At the first meeting there were 12 MD's and myself. At the second meeting of discussion there were 29 MD's. The third and final meeting had 48 physicians in this meeting hall with me. It was at the final meeting that I asked the fourth or fifth question. *"How many of this group could practice outside of their own medical group without violating their noncompeting clause that they were all under contract with?"* In other words, many physicians are aware that much of what they do is ineffective and may cause harm. This usually occurs by their 10th year of practice. **At this point, the better physicians start looking elsewhere and talk among themselves for other approaches.**

We tend to believe that all MD's are alike. We tend to believe that the AMA represents the feelings of all physicians. **This is quite simply not true.** The AMA represents only slightly over 30% of practicing physicians. And all have taken the perks of the pharmaceutical companies, such as cruises in which they are taught about the "newest and best" new drug, or trips to Las Vegas for the same tactic, they have become increasingly aware that the drug companies really have very little "new" medicine to teach them. They are however, constantly warned with the threat of loss of license, censorship of publications and loss of their jobs within physicians groups if they stray from the "approved" methods of treatment.

And let me further state that this cannot all be blamed on the allopathic physicians. In the hopes of staying viable as an offered alternative form of medicine, Naturopathic physicians have come to follow the same model used by the AMA. In this model, if you do not graduate from the Connecticut School of Naturopathic Medicine, then you are not allowed to practice in Connecticut. Bastyr University graduation allows you to practice in a few other states. And a few other States have their own Naturopathic Colleges. I was licensed first in North Carolina, where, since I left it, has become a crime to practice Naturopathic medicine now. With this increasing attitude and actions limiting the people right to choose and the various schools vying for exclusivity in practicing, I see little hope in the much needed integrative approach to ever happening in the USA.

**It is a shame that the best physicians are never going to be allowed to learn and share their information in a country that would have so much to offer, if it were encouraged and not condemned.**

- Dr. Michael Farley, ND



# A Guide to Understanding **HERBAL MEDICINES** and Surviving the Coming Pharmaceutical Monopoly

"This guide is indispensable for anyone who wants to learn about herbal medicine. I highly recommend it." - Dr. Jim Howenstine, MD



**Dr. Michael Farley, ND** is a naturopathic doctor (ND) who began his early studies in Oriental Medicine at the age of four. By the time he was twelve years old, Dr. Farley had learned how to control the autonomic nervous system (heart rate, breathing, and fine motor coordination). During his teen years, he was instructed in herbal medicine and classical acupuncture and physiotherapy along with the martial arts of Tai Chi Chuan and Kempo. For seven years, Dr. Farley was taught advanced Oriental Medicine by Dr. Buni Toma, M.D. who continued his education in herbal medicine with added emphasis on herbal chemistry and its use in conjunction with allopathic medicine. Dr. Farley eventually studied advanced Oriental Medicine under Dr. Soo Young (Peter) Cha. Dr. Farley designed, developed and patented five medical orthotic devices for the equine industry, including the "Farley Compression Boot" which was mandated at all major racetracks in North America and several other countries. Dr. Farley earned master instructor degrees in Tae Kwon Do (Korean Martial arts), Ho Sin Sul, and Korean Judo. He used this knowledge to teach combat and survival skills to specialized federal personnel from several diverse federal agencies. For almost a decade in the 1980's, Dr. Farley was a Forensic Pathology and Physiology consultant for the U.S. Department of Justice. Dr. Farley currently lectures and teaches internationally on integrative medicine along with researching and developing specific protocols for the treatment of cancer, AIDS chronic pain and neurological disorders.



**Ty Bollinger** is a happily married husband and father, a CPA, health freedom advocate, cancer researcher, former competitive bodybuilder, and author of the best-selling book "Cancer – Step Outside the Box." After losing several family members to cancer (including his mother and father), Ty refused to accept the notion that chemotherapy, radiation, and surgery were the most effective treatments available for cancer patients. He began a quest to learn all he possibly could about alternative cancer treatments and the medical industry. What he uncovered was shocking. There is ample evidence to support the allegation that the "war on cancer" is largely a fraud and that multinational pharmaceutical companies are "running the show." In 2006, after almost a decade of cancer research, he published "Cancer – Step Outside the Box" which has sold over 100,000 copies and has been called the "most eye-opening book since 1984." Ty has now made it his life's mission to share the most remarkable discovery he made on his quest the vast majority of all diseases, including CANCER, can be easily prevented and even cured without drugs or surgery. Speaking from personal experience and extensive research, Ty has touched the hearts and changed the lives of thousands of people around the world. Ty speaks frequently to health groups, at seminars, conferences, churches, and is a regular guest on multiple radio shows and writes for numerous magazines and websites.

**This authoritative reference guide is based upon the most recent scientific research and provides crucial insight into the phenomenal healing properties of medicinal herbs.**



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